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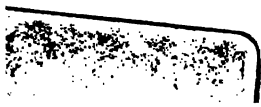
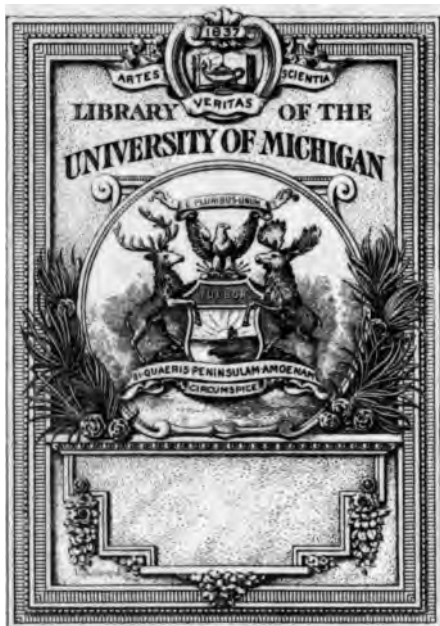
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ANNUAL REPORTS

119698

OF THE

WAR DEPARTMENT

FOR THE

FISCAL YEAR ENDED JUNE 30, 1902.

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VOLUME I.

REPORT OF THE SECRETARY OF WAR  
AND  
REPORTS OF BUREAU CHIEFS.

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WASHINGTON:  
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1903.



ARRANGEMENT OF THE ANNUAL REPORTS OF THE WAR DEPARTMENT  
FOR THE YEAR ENDED JUNE 30, 1902.

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as follows:**

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Inspector-General.  
Judge-Advocate-General.  
Quartermaster-General.  
Commissary-General.  
Surgeon-General.  
Paymaster-General.  
Chief Signal Officer.  
Chief of Record and Pension Office.  
Chief of Bureau of Insular Affairs.

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**Volume VII.—Reports of the Chief of Ordnance and Board of Ordnance and  
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**Volume VIII.—Miscellaneous Reports, as follows:**

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Artillery School.  
School of Submarine Defense.  
Division of the Philippines:  
    Department of North Philippines.  
    Department of South Philippines.  
    Department of the Visayas.

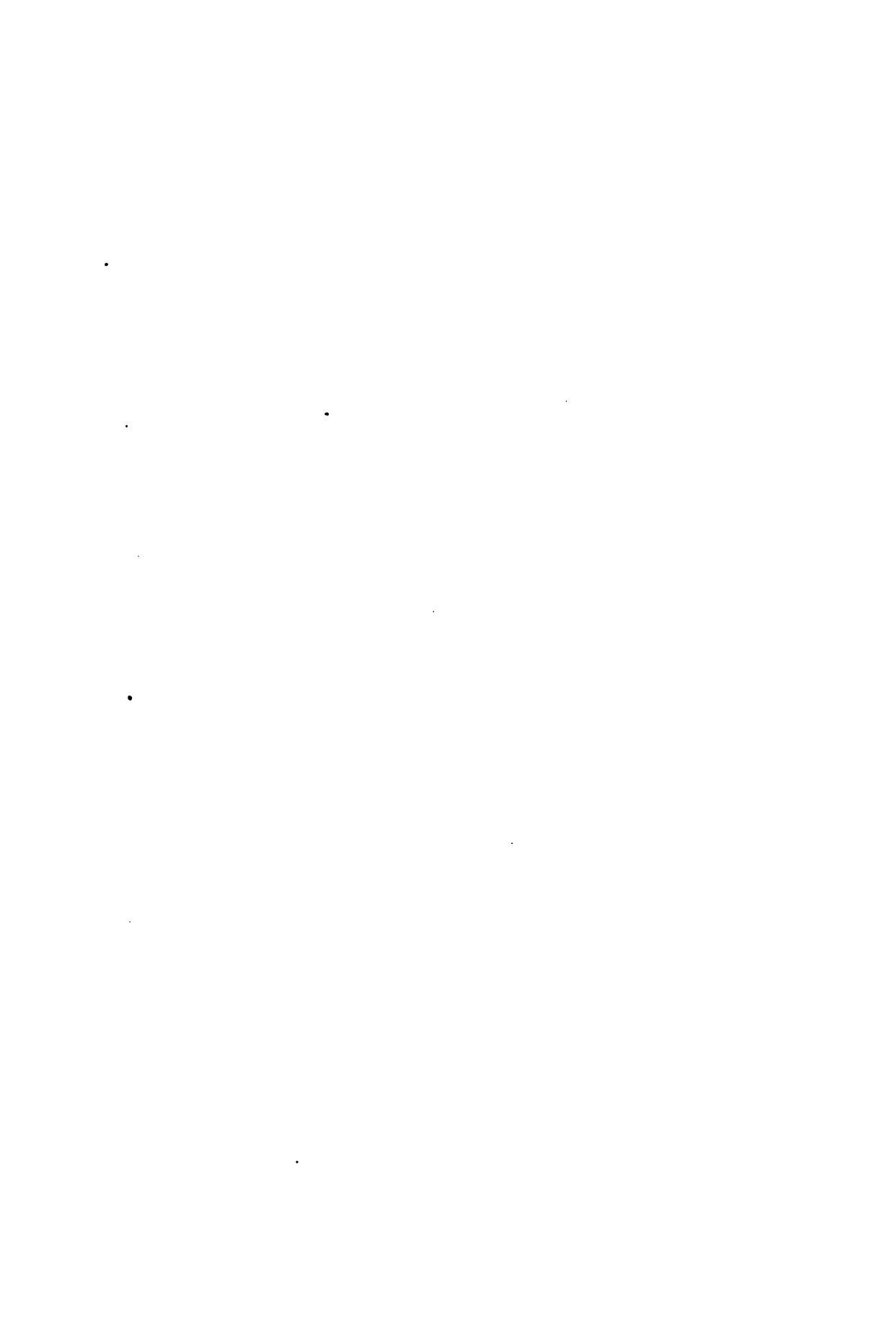
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**REPORT OF THE SECRETARY OF WAR.**

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# REPORT

## OF

# THE SECRETARY OF WAR.

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WAR DEPARTMENT,  
*Washington, D. C., December 1, 1902.*

To the PRESIDENT:

I have the honor to submit the following report of operations of this Department for the past year:

On November 27, 1901, the date of the last annual report of the Secretary of War, the Army of the United States, according to the latest reports which had been received from the field, consisted of 3,253 officers and 76,084 enlisted men. In addition there were 4,336 men in the hospital corps; 172 volunteer surgeons appointed for duty in the Philippines under the provisions of section 18 of the act of February 2, 1901; 4,973 native scouts under the command of 98 officers in the Philippines, and 25 officers and 815 men of the Porto Rico Provisional Regiment of Infantry.

### REDUCTION OF THE ENLISTED STRENGTH OF THE ARMY.

The continued improvement of conditions in the Philippines made possible a further reduction in the enlisted strength of the Army, which, by order dated May 31, 1902, was fixed as follows:

Cavalry.....	14,040
Artillery:	
Coast.....	13,734
Field.....	3,680
Noncommissioned staff and bands.....	328
	17,742
Infantry.....	29,880
Engineer battalions and band.....	1,282
Additional strength for troops stationed at the General Service and Staff College, School of Application, and Legation Guard, Peking, China.....	770
Enlisted men, staff departments, etc.....	2,783
	66,497
Total Army.....	66,497

To meet the requirements of the act of June 28, 1902, for the support of the Military Academy, and of the act of June 30, 1902, making appropriations for the support of the Army, slight modifications of the enlisted strength were made under date of July 1, 1902, making the total enlisted strength of the Army 66,711.

On October 15, 1902, the regular establishment consisted, according to the latest reports which had been received, of 3,586 officers and 66,003 enlisted men, a total of 69,589. In addition, there were 3,598 men of the Hospital Corps, but under the provisions of the act of March 1, 1887, not included as part of the enlisted force of the Army. There were also in the service 182 volunteer medical officers, appointed under section 18 of the act of February 2, 1901, all of whom are under orders for honorable discharge on account of their services being no longer required; 4,978 Philippine scouts, enlisted from the natives, under command of 100 officers, and 29 officers and 840 enlisted men of the Porto Rico Provisional Regiment.

The distribution of the Army October 15, 1902, was as follows:

Country.	Officers.	Enlisted men.	Hospital Corps.	Total.
United States.....	2,476	44,163	1,868	48,507
Philippine Islands.....	1,039	19,800	1,594	22,433
Cuba.....	26	819	39	884
Porto Rico.....	11	228	37	276
Hawaiian Islands.....	9	198	15	222
China.....	2	131	5	138
Alaska.....	23	664	40	727
Total.....	3,586	66,003	3,598	78,187

(In addition there were the officers and men of the Porto Rico Provisional Regiment and of the Philippine Scouts and the volunteer surgeons under orders for discharge, as above stated.)

Since the ending of the insurrection and the complete establishment of civil government in the Philippines, it has been possible to make a still further reduction of the Army, and on October 24, 1902, an order was made reducing the enlisted strength to 59,866, the minimum provided by the act of February 2, 1901 (excepting as to the organizations stationed at Fort Leavenworth, Fort Riley, and Pekin), as follows:

Cavalry.....	12,240
Artillery:	
Coast.....	13,734
Field.....	3,680
Noncommissioned staff and bands.....	328
	17,742

Infantry .....	24,480
Engineer battalions and band .....	1,282
Additional strength for troops stationed at the General Service and Staff College, School of Application, and Legation Guard, Peking, China.....	1,245
Enlisted men, staff departments, etc .....	2,877
<b>Total .....</b>	<b>59,866</b>

The necessary instructions have been given prescribing the method of effecting the reduction required by the order of October 24, 1902, so that it will have been completely accomplished in the most economical way before the end of the current fiscal year, and in the main accomplished during the next thirty days.

The effect of carrying out this order will be to bring the American troops stationed in the Philippines down to an enlisted strength of 13,480.

The distribution will be as follows:

In Philippines .....	13,480
Coast Artillery in United States, Cuba, and Hawaii.....	13,298
Field Artillery in United States .....	3,320
Nine bands and sergeants-major .....	300
Cavalry in United States (including bands, regimental and squadron non-commissioned staff) .....	8,540
Infantry in United States (including bands, regimental and battalion non-commissioned staff) .....	16,645
Infantry in Peking .....	150
Infantry in Alaska (excluding 234, who will have to be left there until after navigation opens next summer) .....	390
Engineers in United States (including band) .....	866
Staff departments .....	2,877
<b>Total .....</b>	<b>59,866</b>

The exception of the organizations stationed at Fort Leavenworth and Fort Riley from the reduction to the minimum strength is made for purposes of instruction, so that at the general service and staff college and the school of application for cavalry and light artillery, student officers may become familiar with the handling of troops at full war strength.

With the execution of this order the Regular Army will have been reduced to the minimum of enlisted strength which, in the judgment of Congress, a wise policy requires us to maintain as insurance against future attack.

The estimates prepared for submission to Congress at the present session call for appropriations on that basis.

The only armed forces which will then remain to be maintained on account of the islands ceded by Spain under the Treaty of Paris will be the Porto Rico Provisional Regiment and the Philippine Scouts.

#### PORTO RICO REGIMENT.

The act of February 2, 1901, provides that the Porto Rico Regiment shall be continued in service until further directed by Congress. I recommend that the discontinuance of that regiment be now directed, and that at the same time the right of enlistment in the Regular Army be extended to citizens of Porto Rico. There is no longer occasion for maintaining a special and peculiar force in the island, at the expense of the United States, outside of the coast-defense fortifications. Under the prosperous conditions which have followed the very liberal treatment of the island by the United States, the insular government is well able to support a police force adequate to preserve internal peace and order, and there is no more reason for maintaining a special United States force in addition to the Regular Army to protect Porto Rico against external attack than there is to maintain such a force to protect any part of our territory on the Atlantic coast. The people of Porto Rico should, however, have an opportunity to share in the general defense of the Government to which they owe allegiance and of the institutions which they enjoy.

#### PHILIPPINE SCOUTS.

The Philippine Scouts should be continued. They enable us to reduce the force of American troops in the Philippines more rapidly than we could without them, and their knowledge of the country, language and the ways of the people, make them especially valuable in hunting down ladrones, which for a good while to come will be an urgent business. The relations between this body of scouts, maintained at the expense of the United States, and the insular constabulary, maintained at the expense of the Philippine government, will have to be worked out hereafter when we have had longer experience of the working of the two forces under peaceful conditions, and know better what revenues can be relied upon by the insular government under like conditions. Both forces are now useful agents in maintaining order. Whether that shall be ultimately accomplished through one force or the other, or both, can hardly as yet be profitably discussed.

## VOLUNTEER SURGEONS.

The reduction of the Army has been accompanied by an order for the discharge of all the volunteer surgeons authorized by the act of February 2, 1901, and a large reduction of the Hospital Corps. The prevalence of cholera in the Philippines, however, has made it necessary to retain a number of contract surgeons and Hospital Corps men, with whose services we can dispense ultimately.

## ENLISTMENTS.

During the fiscal year ended June 30, 1902, there were 124,542 applications for enlistment in the Army, not including the Hospital Corps and Philippine Scouts. Of these, 37,461, or about 30 per cent, were accepted and 87,081, or about 70 per cent, were rejected. Of the number accepted, 32,249 were natives of the United States, 4,726 were of foreign birth, and 486 were born in Porto Rico; 34,677 were white, 2,284 colored, 14 Indians, and 486 Porto Ricans (color not specified). The reenlistments numbered 11,435 and the new enlistments 26,026. Excluding reenlistments, the percentage of native born among the newly enlisted men was 89.5. Of the applicants rejected, 1,622 were rejected as aliens and 3,828 as illiterates.

## MORTALITY AND HEALTH.

The health of the Army has shown a continued improvement. The deaths from all causes during the calendar year 1901 amounted to 13.94 per thousand of mean strength as against 22.74 per thousand of mean strength during the calendar year 1900. This large reduction of death rate was in a great measure due to improved conditions in the Philippines, where the rate was reduced to 17.96 per thousand in the year 1901 as against 29.42 per thousand in the year 1900. The death rate from all causes during the year 1901 in the United States was 6.90 per thousand; in Porto Rico, 7.81; in Cuba, 5.29, and in the Pacific islands and China, 17.96. The rates of admission to sick report for disease and injury and the rate of discharge for disability during the calendar year 1901 agree with the reduced mortality rate in being considerably less than the corresponding rates for the year 1900.

A further improvement of health in the Philippines may be anticipated from the cessation of guerrilla warfare with the exposure incident to it, and from the concentration of the troops remaining

in the islands in a smaller number of posts selected and constructed with special reference to sanitary conditions. This work of construction is being pressed forward as rapidly as possible with the appropriations made by Congress at the last session.

Full returns have not been received covering the period of epidemic cholera in the Philippines, but telegraphic reports indicate that the Army has suffered but little.

#### MILITARY OPERATIONS.

The principal military events of the past year have been the end of the military occupation of Cuba and the end of the insurrection in the Philippines.

#### CUBA.

In conformity to the Cuban constitution and electoral law, translations of which were annexed to my report of last year, elections were held by the Cuban people on the 31st of December, 1901, and by the electoral college on the 24th of February, 1902, when a president, vice-president, senate and house of representatives were chosen. On the 24th of March, 1902, the following instructions were given to the military governor:

Brigadier-General LEONARD WOOD,

*Military Governor of Cuba, Havana, Cuba.*

SIR: You are authorized to provide for the inauguration, on the 20th of May next, of the government elected by the people of Cuba; and upon the establishment of said government to leave the government and control of the island of Cuba to its people, pursuant to the provisions of the act of Congress entitled "An act making appropriation for the Army for the fiscal year ending June 30, 1902," approved March 2, 1901.

Upon the transfer of government and control to the President and Congress so elected, you will advise them that such transfer is upon the express understanding and condition that the new government does thereupon, and by the acceptance thereof, pursuant to the provisions of the appendix to the constitution of Cuba adopted by the constitutional convention on the 12th of June, 1901, assume and undertake all and several the obligations assumed by the United States with respect to Cuba by the treaty between the United States of America and Her Majesty the Queen Regent of Spain, signed at Paris on the 10th day of December, 1898. It is the purpose of the United States Government, forthwith upon the inauguration of the new government of Cuba, to terminate the occupancy of the island by the United States and to withdraw from that island the military forces now in occupancy thereof; but for the preservation and care of the coast defenses of the island, and to avoid leaving the island entirely defenseless against external attack, you may leave in the coast fortifications such small number of artillerymen as may be necessary, for such reasonable time, as may be required to enable the new government to organize and substitute therefor an adequate military force of its own; by which time it is anticipated that the naval stations referred to in the statute and in the

appendix to the constitution above cited, will have been agreed upon, and the said artillerymen may be transferred thereto.

You will convene the Congress elected by the people of Cuba in joint session at such reasonable time before the 20th of May as shall be necessary therefor, for the purpose of performing the duties of counting and rectifying the electoral vote for President and Vice-President under the fifty-eighth article of the Cuban constitution. At the same time you will publish and certify to the people of Cuba the instrument adopted as the constitution of Cuba by the constitutional convention on the 21st day of February, 1901, together with the appendix added thereto and forming a part thereof, adopted by the said convention on the 12th day of June, 1901. It is the understanding of the Government of the United States that the government of the island will pass to the new President and Congress of Cuba as a going concern, all the laws promulgated by the government of occupation continuing in force and effect, and all the judicial and subordinate executive and administrative officers continuing in the lawful discharge of their present functions until changed by the constitutional officers of the new government. At the same moment the responsibility of the United States for the collection and expenditure of revenues, and for the proper performance of duty by the officers and employees of the insular government will end, and the responsibility of the new government of Cuba therefor will commence.

In order to avoid any embarrassment to the new president which might arise from his assuming executive responsibility with subordinates whom he does not know, or in whom he has not confidence, and to avoid any occasion for sweeping changes in the civil-service personnel immediately after the inauguration of the new government, approval is given to the course which you have already proposed of consulting the president-elect, and substituting before the 20th of May, wherever he shall so desire, for the persons now holding official positions, such persons as he may designate. This method will make it necessary that the new president and yourself should appoint representatives to count and certify the cash and cash balances, and the securities for deposits, transferred to the new government. The consent of the owner of the securities for deposits to the transfer thereof you will of course obtain.

The vouchers and accounts in the office of the Auditor and elsewhere relating to the receipt and disbursement of moneys during the government of occupation must necessarily remain within the control and available for the use of this Department. Access to these papers will, however, undoubtedly be important to the officers of the new Government in the conduct of their business subsequent to the 20th of May. You will accordingly appoint an agent to take possession of these papers, and retain them at such place in the island of Cuba as may be agreed upon with the new Government until they can be removed to the United States without detriment to the current business of the new Government.

I desire that you communicate the contents of this letter to Mr. Palma, the President-elect, and ascertain whether the course above described accords with his views and wishes.

Very respectfully,

ELIHU ROOT,  
Secretary of War.



administration; and to the department commanders, Gen. James H. Wilson and Gen. Fitzhugh Lee; to the lamented Gen. William Ludlow, whose arduous labors in the government and sanitation of Havana made his untimely death not the least of his country's sacrifices for Cuba; to Brig. Gen. Joseph P. Sanger, commander at Matanzas and later director of the census; and to Maj. Gen. (then Col.) Adna R. Chaffee, chief of staff, and Col. W. V. Richards and Col. H. L. Scott, adjutants-general of the department.

Especial credit is due also to the Medical Department of the Army, and particularly to Maj. Walter Reed and Maj. William C. Gorgas for their extraordinary service in ridding the island of yellow fever, described in my last report; and to Dr. Jefferson R. Kean and Dr. James Carroll for their share in that work.

The brilliant character of this scientific achievement, its inestimable value to mankind, the saving of thousands of lives, and the deliverance of the Atlantic seacoast from constant apprehension, demand special recognition from the Government of the United States.

Dr. Reed is the ranking major in the Medical Department, and within a few months will, by operation of law, become lieutenant-colonel. I ask that the President be authorized to appoint him assistant surgeon-general with the rank of colonel, and to appoint Major Gorgas deputy surgeon-general with the rank of lieutenant-colonel, and that the respective numbers in those grades in the Medical Department be increased accordingly during the period for which they hold those offices.

The name of Dr. Jesse W. Lazear, contract surgeon, who voluntarily permitted himself to be inoculated with the yellow fever germ, in order to furnish a necessary experimental test in the course of the investigation, and who died of the disease, should be written in the list of the martyrs who have died in the cause of humanity. As a slight memorial of his heroism a battery in the coast defense fortification at Fort Howard, Baltimore, Md., has been named "Battery Lazear."

Under the clause of the foregoing instructions relating to the care of the coast defenses in Cuba, four companies of Coast Artillery have been left in the fortifications of Habana, two companies at Cienfuegos, and two companies at Santiago, pending the location of naval stations, to which they may be transferred, and the instruction of Cuban artil-

lerists to take their place. The Cuban artillery force has been organized and is receiving regular instruction from our artillery officers.

I append hereto, marked "Appendix B," a statement showing the amount and sources of all revenue collected in Cuba between the surrender of Santiago on July 14, 1898, and the end of the military government on the 20th of May, 1902, and showing the disposition of the funds so collected. A complete and detailed statement of the audited accounts by items covering the entire sum has been prepared and will be transmitted to Congress at the opening of the session.

#### THE PHILIPPINES.

At the time of my last report Malvar, in the provinces of Batangas and Tayabas, in the island of Luzon, and Lukban, in the island of Samar, were the only insurgent leaders of importance who still maintained guerrilla warfare. We hoped that these leaders with their followers would yield to the example and advice of the great body of the Philippine people who had become friendly to the United States, and would voluntarily lay down their arms. It soon became evident, however, that this would not be the case. Malvar grew stronger, rather than weaker, under the effect of a conciliatory and peaceful policy, and the fierce natives of Samar were excited to greater hostile activity by a successful surprise at Balangiga in September, by which the people of the town, who had given every appearance of friendliness and were treated as friends, set upon a company of the Ninth Infantry while at breakfast and murdered most of them.

Active campaigns were accordingly inaugurated in both regions; and these resulted in the surrender of Malvar on the 16th of April, and in the capture of Lukban and the surrender of Guevara, his successor, on the 27th of April. Gen. Frederick D. Grant reports that the surrenders in Samar included every gun known to exist in the island, except two; and Gen. J. F. Bell, who conducted operations against Malvar, in Batangas, reports that during the campaign we secured 3,561 guns, 625 revolvers, with many thousand bolos, rounds of ammunition, etc., and detected, captured, or forced to surrender some eight or ten thousand persons actively engaged in one capacity or another in the insurrection. These surrenders put an end to the guerrilla warfare in the Philippines, which had been waged with great

in the islands in a smaller number of posts selected and constructed with special reference to sanitary conditions. This work of construction is being pressed forward as rapidly as possible with the appropriations made by Congress at the last session.

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appendix to the constitution above cited, will have been agreed upon, and the said artillerymen may be transferred thereto.

You will convene the Congress elected by the people of Cuba in joint session at such reasonable time before the 20th of May as shall be necessary therefor, for the purpose of performing the duties of counting and rectifying the electoral vote for President and Vice-President under the fifty-eighth article of the Cuban constitution. At the same time you will publish and certify to the people of Cuba the instrument adopted as the constitution of Cuba by the constitutional convention on the 21st day of February, 1901, together with the appendix added thereto and forming a part thereof, adopted by the said convention on the 12th day of June, 1901. It is the understanding of the Government of the United States that the government of the island will pass to the new President and Congress of Cuba as a going concern, all the laws promulgated by the government of occupation continuing in force and effect, and all the judicial and subordinate executive and administrative officers continuing in the lawful discharge of their present functions until changed by the constitutional officers of the new government. At the same moment the responsibility of the United States for the collection and expenditure of revenues, and for the proper performance of duty by the officers and employees of the insular government will end, and the responsibility of the new government of Cuba therefor will commence.

In order to avoid any embarrassment to the new president which might arise from his assuming executive responsibility with subordinates whom he does not know, or in whom he has not confidence, and to avoid any occasion for sweeping changes in the civil-service personnel immediately after the inauguration of the new government, approval is given to the course which you have already proposed of consulting the president-elect, and substituting before the 20th of May, wherever he shall so desire, for the persons now holding official positions, such persons as he may designate. This method will make it necessary that the new president and yourself should appoint representatives to count and certify the cash and cash balances, and the securities for deposits, transferred to the new government. The consent of the owner of the securities for deposits to the transfer thereof you will of course obtain.

The vouchers and accounts in the office of the Auditor and elsewhere relating to the receipt and disbursement of moneys during the government of occupation must necessarily remain within the control and available for the use of this Department. Access to these papers will, however, undoubtedly be important to the officers of the new Government in the conduct of their business subsequent to the 20th of May. You will accordingly appoint an agent to take possession of these papers, and retain them at such place in the island of Cuba as may be agreed upon with the new Government until they can be removed to the United States without detriment to the current business of the new Government.

I desire that you communicate the contents of this letter to Mr. Palma, the President-elect, and ascertain whether the course above described accords with his views and wishes.

Very respectfully,

ELIHU ROOT,  
*Secretary of War.*

These instructions, being communicated to the President-elect, Mr. Palma, received his approval, and they were completely executed on the 20th of May, 1902. The specific instructions which followed and the various public acts, which, taken together, accomplished the termination of military government and the inauguration of the new Republic, are shown in the series of papers annexed hereto as "Appendix A."

The whole governmental situation in Cuba was quite unprecedented, with its curious device of a suspended sovereignty given up by Spain, but not in terms vested in anybody else, and if vested remaining dormant, while a practical working government of military occupation in time of peace, deriving its authority from the sovereignty of another country, claimed temporary allegiance, made and enforced laws, and developed a political organization of the Cuban people to take and exercise the suspended or dormant sovereignty. It was important that in inaugurating the new government there should be no break in the continuity of legal obligation, of rights of property and contract, of jurisdiction, or of administrative action. It would not do to wait for the new government to pass laws or to create offices and appoint administrative officers and vest them with powers, for the instant that the new government was created the intervening government ceased, and the period of waiting would be a period of anarchy.

It was necessary, therefore, to take such steps that the new government should be created as a going concern, every officer of which should be able to go on with his part of the business of governing under the new sovereignty without waiting for any new authority. That everything necessary to this end should be done, and that it should be done according to a consistent and maintainable legal theory, caused the Department a good deal of solicitude. It is gratifying to report that it was done, and that the government which, until noon of May 20th, was proceeding under the authority of the President of the United States, went on in the afternoon of that day and has ever since continued under the sovereignty which had been abandoned by Spain in April, 1899, without any more break or confusion than accompanies the inauguration of a new President in the United States. This could not have been done without the most perfect good understanding, mutual confidence, and sympathetic

cooperation on the part of our officers, who were about to retire, and the newly-elected officers of Cuba, who were about to take the reins of government. Our troops withdrew from Cuba in the afternoon of the 20th of May, amid universal expressions of gratitude, esteem, and affection. The public feeling was well illustrated by the following telegram from President Palma:

HAVANA, *May 21, 1902.*

ELIHU ROOT,

*Secretary of War, Washington:*

I am deeply moved by your heartfelt message of congratulation on the inauguration of the Republic of Cuba, to the birth of which the people and the Government of the United States have contributed with their blood and treasure. Rest assured that the Cuban people can never forget the debt of gratitude they owe to the great Republic, with which we will always cultivate the closest relations of friendship and for the prosperity of which we pray to the Almighty.

T. ESTRADA PALMA.

I venture to express the hope that this strong and well-deserved friendship of Cuba may be permanent and may never be alienated by our treatment of the smaller and weaker power, and that the people of the United States may never lose their deep interest in the welfare of the new Republic which they have called into being with so much labor and sacrifice. I know of no chapter in American history more satisfactory than that which will record the conduct of the military government of Cuba. The credit for it is due, first of all, to Brig. Gen. Leonard Wood, the commander of the department of Santiago until December, 1899, and thenceforth military governor of the island. Credit is due also to Brig. Gen. Tasker H. Bliss, who had charge of the collection of customs revenues; Maj. E. St. John Greble and Maj. and Surg. Jefferson R. Kean, successively heads of the department of charities; Lieut. Matthew E. Hanna, superintendent of public schools; Lieut. E. C. Brooks and Mr. J. D. Terrill, successively auditors of Cuba; and to the Cuban gentlemen who, as heads of the various state departments, constituted the cabinet of the military governor: Messrs. Diego Tamayo, secretary of state and government; Leopoldo Cancio, secretary of finance; Jose Varela, secretary of justice; Jose R. Villalon, secretary of public works; Enrique Jose Varona, secretary of public instruction; and Perfecto Lacoste, secretary of agriculture. Credit is also due to Maj. Gen. John R. Brooke, the first military governor, and the members of his

administration; and to the department commanders, Gen. James H. Wilson and Gen. Fitzhugh Lee; to the lamented Gen. William Ludlow, whose arduous labors in the government and sanitation of Havana made his untimely death not the least of his country's sacrifices for Cuba; to Brig. Gen. Joseph P. Sanger, commander at Matanzas and later director of the census; and to Maj. Gen. (then Col.) Adna R. Chaffee, chief of staff, and Col. W. V. Richards and Col. H. L. Scott, adjutants-general of the department.

Especial credit is due also to the Medical Department of the Army, and particularly to Maj. Walter Reed and Maj. William C. Gorgas for their extraordinary service in ridding the island of yellow fever, described in my last report; and to Dr. Jefferson R. Kean and Dr. James Carroll for their share in that work.

The brilliant character of this scientific achievement, its inestimable value to mankind, the saving of thousands of lives, and the deliverance of the Atlantic seacoast from constant apprehension, demand special recognition from the Government of the United States.

Dr. Reed is the ranking major in the Medical Department, and within a few months will, by operation of law, become lieutenant-colonel. I ask that the President be authorized to appoint him assistant surgeon-general with the rank of colonel, and to appoint Major Gorgas deputy surgeon-general with the rank of lieutenant-colonel, and that the respective numbers in those grades in the Medical Department be increased accordingly during the period for which they hold those offices.

The name of Dr. Jesse W. Lazear, contract surgeon, who voluntarily permitted himself to be inoculated with the yellow fever germ, in order to furnish a necessary experimental test in the course of the investigation, and who died of the disease, should be written in the list of the martyrs who have died in the cause of humanity. As a slight memorial of his heroism a battery in the coast defense fortification at Fort Howard, Baltimore, Md., has been named "Battery Lazear."

Under the clause of the foregoing instructions relating to the care of the coast defenses in Cuba, four companies of Coast Artillery have been left in the fortifications of Habana, two companies at Cienfuegos, and two companies at Santiago, pending the location of naval stations, to which they may be transferred, and the instruction of Cuban artil-

lerists to take their place. The Cuban artillery force has been organized and is receiving regular instruction from our artillery officers.

I append hereto, marked "Appendix B," a statement showing the amount and sources of all revenue collected in Cuba between the surrender of Santiago on July 14, 1898, and the end of the military government on the 20th of May, 1902, and showing the disposition of the funds so collected. A complete and detailed statement of the audited accounts by items covering the entire sum has been prepared and will be transmitted to Congress at the opening of the session.

#### THE PHILIPPINES.

At the time of my last report Malvar, in the provinces of Batangas and Tayabas, in the island of Luzon, and Lukban, in the island of Samar, were the only insurgent leaders of importance who still maintained guerrilla warfare. We hoped that these leaders with their followers would yield to the example and advice of the great body of the Philippine people who had become friendly to the United States, and would voluntarily lay down their arms. It soon became evident, however, that this would not be the case. Malvar grew stronger, rather than weaker, under the effect of a conciliatory and peaceful policy, and the fierce natives of Samar were excited to greater hostile activity by a successful surprise at Balangiga in September, by which the people of the town, who had given every appearance of friendliness and were treated as friends, set upon a company of the Ninth Infantry while at breakfast and murdered most of them.

Active campaigns were accordingly inaugurated in both regions; and these resulted in the surrender of Malvar on the 16th of April, and in the capture of Lukban and the surrender of Guevara, his successor, on the 27th of April. Gen. Frederick D. Grant reports that the surrenders in Samar included every gun known to exist in the island, except two; and Gen. J. F. Bell, who conducted operations against Malvar, in Batangas, reports that during the campaign we secured 3,561 guns, 625 revolvers, with many thousand bolos, rounds of ammunition, etc., and detected, captured, or forced to surrender some eight or ten thousand persons actively engaged in one capacity or another in the insurrection. These surrenders put an end to the guerrilla warfare in the Philippines, which had been waged with great



ferocity ever since the destruction of Aguinaldo's government in the latter part of 1899, and had been accompanied by constant treachery, assassination, cruelty, and disregard of the laws of war.

The way was now clear to complete the establishment of civil government, and by energetic action and hearty cooperation on the part of both the civil and military authorities in the Philippines this was accomplished coincidentally with the enactment by Congress of the Philippine government bill of July 1, 1902.

On the 4th of July, 1902, the remainder of the military government was ended by the following order:

WAR DEPARTMENT, *Washington, July 4, 1902.*

The insurrection against the sovereign authority of the United States in the Philippine Archipelago having ended, and provincial civil governments having been established throughout the entire territory of the archipelago not inhabited by Moro tribes, under the instructions of the President to the Philippine Commission, dated April 7, 1900, now ratified and confirmed by the act of Congress approved July 1, 1902, entitled "An act temporarily to provide for the administration of affairs of civil government in the Philippine Islands, and for other purposes," the general commanding the Division of the Philippines is hereby relieved from the further performance of the duties of military governor, and the office of military governor in said archipelago is terminated. The general commanding the Division of the Philippines, and all military officers in authority therein, will continue to observe the direction contained in the aforesaid instructions of the President, that the military forces in the Division of the Philippines shall be at all times subject, under the orders of the military commander, to the call of the civil authorities for the maintenance of law and order and the enforcement of their authority.

By the President:

ELIHU ROOT, *Secretary of War.*

On the same day the President issued a proclamation of peace and amnesty, a copy of which is annexed as "Appendix C."

The dual process by which the military power had steadily acquired control over the various provinces of the archipelago, and at the same time had been superseded progressively by civil administration, was then finished, and a complete system of civil government, built up under the authority of the President, was in operation, ready to go on under the authority of Congress.

I described in my last report the important bearing which the continuous offer and bestowal of civil rights and local self-government as the result of pacification had upon the attitude of the people toward the insurrection. It is evident that the insurrection has been brought

to an end both by making a war distressing and hopeless on the one hand, and by making peace attractive, through immediate and present demonstration of the sincerity of our purpose to give to the people just and free government, on the other. This result could not have been accomplished except by genuine and hearty cooperation of both the military and civil authorities acting together under the general direction of the War Department. The good temper and mutual consideration and helpfulness, and subordination of personal to public interests, displayed by General MacArthur and General Chaffee on the one hand, and by Governor Taft, Vice-Governor Wright, and the Civil Commission on the other, frequently under circumstances of great delicacy and difficulty, are worthy of high praise. Some of their subordinates, through incomplete knowledge and from widely differing points of view, have sometimes expressed discordant opinions, but both soldiers and civilians, with very few exceptions, have rendered loyal and devoted support to the prescribed policy.

There was at one time in the public press and on the floor of Congress much criticism of the conduct of the Army in the Philippines, as being cruel and inhuman. All wars are cruel. This conflict consisted chiefly of guerrilla warfare. It lasted for some three years and a half, and extended over thousands of miles of territory. Over 120,000 men were engaged upon our side, and much greater numbers upon the other, and we were fighting against enemies who totally disregarded the laws of civilized warfare, and who were guilty of the most atrocious treachery and inhuman cruelty. It was impossible that some individuals should not be found upon our side who were unnecessarily and unjustifiably cruel. Such instances, however, after five months of searching investigation by a committee of the Senate, who took some three thousand printed pages of testimony, appear to have been comparatively few, and they were in violation of strict orders obedience to which characterized the conduct of the Army as a whole.

The two observers who, as the heads of the civil government in the Philippines, had the best opportunities for information, and at the same time were naturally free from any military bias, have given what I believe to be a true statement of the character of our military operations.

Vice-Governor Luke E. Wright says, in a letter written on the 20th of July last:

General Chaffee, as a matter of course, had no patience with any acts of oppression or cruelty, and whenever his attention has been called to them has at once taken proper steps. The howl against the Army has been made mainly for political purposes, and the cruelties practiced have been largely exaggerated. Of course, numerous instances of this character have occurred. There never was and never will be a war of which the same may not be said, but taken as a whole, and when the character of the warfare here is considered, I think the officers and men of the American Army have been forbearing and humane in their dealings with the natives, and the attempt to create a contrary impression is not only unjust to them, but it seems to me unpatriotic as well.

Governor Taft, in his testimony under oath before the Philippine Committee of the Senate on the 4th of February last, said:

After a good deal of study about the matter, and, although I have never been prejudiced in favor of the military branch, for when the civil and military branches are exercising concurrent jurisdiction there is some inevitable friction, I desire to say that it is my deliberate judgment that there never was a war conducted, whether against inferior races or not, in which there was more compassion and more restraint and more generosity, assuming that there was war at all, than there have been in the Philippine Islands.

#### SUMMARY OF SERVICE IN CUBA AND THE PHILIPPINES.

The conduct and service of the Army, both in Cuba and in the Philippines, were summed up in the following order:

WAR DEPARTMENT, *Washington, July 4, 1902.*

*To the Army of the United States:*

The President upon this anniversary of national independence wishes to express to the officers and enlisted men of the United States Army his deep appreciation of the service they have rendered to the country in the great and difficult undertakings which they have brought to a successful conclusion during the past year.

He thanks the officers and the enlisted men who have been maintaining order and carrying on the military government in Cuba, because they have faithfully given effect to the humane purposes of the American people. They have with sincere kindness helped the Cuban people to take all the successive steps necessary to the establishment of their own constitutional government. During the time required for that process they have governed Cuba wisely, regarding justice and respecting individual liberty; have honestly collected and expended for the best interests of the Cuban people the revenues, amounting to over \$60,000,000; have carried out practical and thorough sanitary measures, greatly improving the health and lowering the death rate of the island. By patient, scientific research they have ascertained the causes of yellow fever, and by good administration have put an end to that

most dreadful disease, which has long destroyed the lives and hindered the commercial prosperity of the Cubans. They have expedited justice and secured protection for the rights of the innocent, while they have cleansed the prisons and established sound discipline and healthful conditions for the punishment of the guilty. They have reestablished and renovated and put upon a substantial basis adequate hospitals and asylums for the care of the unfortunate. They have established a general system of free common schools throughout the island, in which over 200,000 children are in actual attendance. They have constructed great and necessary public works. They have gradually trained the Cubans themselves in all branches of administration, so that the new government upon assuming power has begun its work with an experienced force of Cuban civil service employees competent to execute its orders. They have borne themselves with dignity and self-control, so that nearly four years of military occupation have passed unmarred by injury or insult to man or woman. They have transferred the government of Cuba to the Cuban people amid universal expressions of friendship and good will, and have left a record of ordered justice and liberty, of rapid improvement in material and moral conditions, and progress in the art of government which reflects great credit upon the people of the United States.

The President thanks the officers and enlisted men of the army in the Philippines both regulars and volunteers, for the courage and fortitude, the indomitable spirit and loyal devotion with which they have put down and ended the great insurrection which has raged throughout the archipelago against the lawful sovereignty and just authority of the United States. The task was peculiarly difficult and trying. They were required at first to overcome organized resistance of superior numbers, well equipped with modern arms of precision, entrenched in an unknown country of mountain defiles, jungles, and swamps, apparently capable of interminable defense. When this resistance had been overcome they were required to crush out a general system of guerrilla warfare conducted among a people speaking unknown tongues, from whom it was almost impossible to obtain the information necessary for successful pursuit or to guard against surprise and ambush.

The enemies by whom they were surrounded were regardless of all obligations of good faith and of all the limitations which humanity has imposed upon civilized warfare. Bound themselves by the laws of war, our soldiers were called upon to meet every device of unscrupulous treachery and to contemplate without reprisal the infliction of barbarous cruelties upon their comrades and friendly natives. They were instructed, while punishing armed resistance, to conciliate the friendship of the peaceful, yet had to do with a population among whom it was impossible to distinguish friend from foe, and who in countless instances used a false appearance of friendship for ambush and assassination. They were obliged to deal with problems of communication and transportation in a country without roads and frequently made impassable by torrential rains. They were weakened by tropical heat and tropical disease. Widely scattered over a great archipelago, extending a thousand miles from north to south, the gravest responsibilities, involving the life or death of their commands, frequently devolved upon young and inexperienced officers beyond the reach of specific orders or advice.

Under all these adverse circumstances the Army of the Philippines has accomplished its task rapidly and completely. In more than two thousand combats, great and small, within three years, it has exhibited unvarying courage and resolution. Utilizing the lessons of the Indian wars, it has relentlessly followed the guerrilla bands to their fastnesses in mountain and jungle and crushed them. It has put an end to the vast system of intimidation and secret assassination by which the peaceful natives were prevented from taking a genuine part in government under American authority. It has captured or forced to surrender substantially all the leaders of the insurrection. It has submitted to no discouragement and halted at no obstacle. Its officers have shown high qualities of command, and its men have shown devotion and discipline. Its splendid virile energy has been accompanied by self-control, patience, and magnanimity. With surprisingly few individual exceptions, its course has been characterized by humanity and kindness to the prisoner and the noncombatant. With admirable good temper, sympathy, and loyalty to American ideals its commanding generals have joined with the civilian agents of the Government in healing the wounds of war and assuring to the people of the Philippines the blessings of peace and prosperity. Individual liberty, protection of personal rights, civil order, public instruction, and religious freedom have followed its footsteps. It has added honor to the flag which it defended, and has justified increased confidence in the future of the American people, whose soldiers do not shrink from labor or death, yet love liberty and peace.

The President feels that he expresses the sentiments of all the loyal people of the United States in doing honor to the whole Army which has joined in the performance and shares in the credit of these honorable services.

This General Order will be read aloud at parade in every military post on the 4th day of July, 1902, or on the first day after it shall have been received.

ELIHU ROOT,  
*Secretary of War.*

#### THE CONTROL OF THE MOROS.

The establishment of civil government in the Philippines still left a function for the Army to perform in the control of the Moros in the Sulu Archipelago, Southern Mindanao, and the southern part of Palawan very similar to that which it has long performed in relation to the Indian tribes in the Western part of the United States. It was only through an extended series of decisions by the Supreme Court of the United States, dealing with specific questions as they arose in the early years of the last century, that the precise legal relations between the Federal Government, the State and Territorial governments, and the Indian tribes of North America were determined.

The court said in the case of *The Cherokee Nation v. The State of Georgia* (5 Peters, 1):

The Indians are acknowledged to have an unquestionable and heretofore an unquestioned right to the lands they occupy until that right shall be extinguished

by a voluntary cession to the Government. It may well be doubted whether those tribes which reside within the acknowledged boundaries of the United States can with strict accuracy be denominated foreign nations. They may more correctly, perhaps, be denominated domestic dependent nations. They occupy territory to which we assert a title, independent of their will, which must take effect in point of possession when their right of possession ceases; meanwhile they are in a state of pupilage. Their relations to the United States resemble that of a ward to his guardian. They look to our Government for protection; rely upon its kindness and its power; appeal to it for relief to their wants, and address the President as their great father.

A similar process of judicial decision will probably be called for by the numerous questions certain to arise from our relations to the Moro tribes; but in the meantime the close general analogy to the relations of the North American Indians indicates a duty, for the present at least, of limited supervision and control operating upon the tribal governments of the Moros, rather than an attempt to substitute an American or Philippine government acting directly upon the individual Moros. In the performance of this duty we find ourselves exercising powers and following methods plainly contemplated by the Constitution, and sanctioned by the judicial decisions and established usage of the entire existence of the Government of the United States.

The instructions of the President to the Philippine Commission of April 7, 1900, contained the following direction based upon the foregoing view:

In dealing with the uncivilized tribes of the islands the Commission should adopt the same course followed by Congress in permitting the tribes of our North American Indians to maintain their tribal organization and government, and under which many of those tribes are now living in peace and contentment, surrounded by a civilization to which they are unable or unwilling to conform. Such tribal governments should, however, be subjected to wise and firm regulation, and without undue or petty interference constant and active effort should be exercised to prevent barbarous practices and introduce civilized customs.

The same instructions provide that the military forces in the Philippines shall be at all times subject, under the orders of the military commander, to the call of the civil authorities for the maintenance of law and order and the enforcement of their authority.

These instructions were approved and adopted by Congress in the Philippine government act of July 1, 1902, and they will continue to guide the civil and military authorities in the Philippines in their dealings with the Moros. The questions to be worked out in that process are altogether apart from the general questions of government

in the Philippines, and such measures of force as are necessary to control the various Moro tribes have no more relation to the recent Philippine insurrection than our troubles with the Sioux or the Apaches had to do with the suppression of the Southern rebellion.

The Moros of the Sulu Archipelago and Palawan, and those living upon, or in immediate communication with, the seacoast in Mindanao, have been as a rule friendly and well behaved. Some of the Malanao Moros who inhabit the borders of Lake Lanao, in the interior of Mindanao, resented attempts made by Americans to examine the interior of the country, and in the spring of this year entered upon a regular system of attacking our men when found alone or in small parties, and stealing our horses and mules. Several of our men were murdered, and in April a demand was made for the return of the property and the surrender of the murderers. This demand was met by defiance, and after long continued and repeated efforts to secure redress and a discontinuance of the practice by peaceable means, an expedition was organized under Col. (now Brig. Gen.) Frank D. Baldwin, which on the 2d and 3d of May attacked and captured the strongholds of the Sultan of Bayang and the dato of Binadayan on Lake Lanao, with a loss of 7 killed and 44 wounded. A part of the Twenty-seventh Infantry and the Twenty-fifth Mountain Battery were engaged. It was a brilliant affair, and the conduct of officers and men merited the high praise conveyed in the following dispatch from the President:

WASHINGTON, D. C., *May 5, 1902.*

CHAFFEE, *Manila:*

Accept for the army under your command, and express to General Davis and Colonel Baldwin especially, my congratulations and thanks for the splendid courage and fidelity which have again carried our flag to victory. Your fellow-countrymen at home will ever reverence the memory of the fallen, and be faithful to the survivors who have themselves been faithful unto death for their country's sake.

THEODORE ROOSEVELT.

After this lesson many of the lake dattos came in and established friendly relations. Some of them, however, remained recalcitrant, and continued the practice of annoyance and attack. General Chaffee reported on the 6th of September that since the 2d of May our troops had been attacked twelve times, with a loss of 4 killed and 12 wounded. On the 28th of September another well-conducted expedition under Capt. John J. Pershing, of the Fifteenth Cavalry, composed of a bat-

talión of the Seventh Infantry, a troop of the Fifteenth Cavalry, and two platoons of the Twenty-fifth Field Artillery, inflicted severe punishment upon the Maciu Moros, capturing many of their fortified places, killing 1 of their sultans and 40 or 50 of their fighting men, with a loss of 2 Americans wounded.

Some further punishment may yet be necessary, but the present indications since this last experience seem to be peaceful.

The numbers of the Lake Lanao Moros are estimated variously from 100,000 to 400,000. The smaller number is probably nearer the fact. No attempts appear to have been made by Spain to exercise any control over them between the middle of the seventeenth century and the year 1890. Some unsuccessful efforts were made by small forces in the years 1890 and 1891; and in 1898, before the war between Spain and the United States, extensive preparations had been made by the Spanish forces in the Philippines for the subjugation of the lake tribes.

Farther in the interior of Midanao are numerous heathen tribes still more savage and lower in the scale of civilization than the Moros. In 1897 the Spanish governor of Mindanao estimated the numbers of sixteen of these tribes at an aggregate of 262,000. From time immemorial the Moros have been in the habit of raiding their villages and carrying away captives into slavery, and a considerable slave trade appears to have been carried on between the southwest coast of Mindanao and ports in the Sulu Archipelago. It is only by asserting and establishing our right of control over the Moro tribes that we can put a stop to this nefarious business; and if there were no other reason, that alone would make it impossible for us to follow the example of Spain and leave the Moros of the interior to themselves.

Now that the insurrection has been disposed of we shall be able to turn our attention, not merely to the slave trade, but to the already existing slavery among the Moros. We can not immediately free the slaves by a single act, first, because it would require a war of extermination in which a large part of the slaves would probably be found fighting against us; and, second, because a large part of them would have nowhere to go and no way to live if deprived of the protection and support of their present masters. I believe, however, that we can maintain a process of gradual and steady reduction, resulting ultimately in the extinction of the practice of slavery. Some of the results of our efforts in that direction are stated in my last report. The process will



be slow, and will require patience and good judgment, but I believe the result will be worth the trouble. The task of improving the Moros is by no means hopeless. Gen. George W. Davis, who commanded in Mindanao, and now commands the Division of the Philippines, says of them:

Whatever may be the number of Moros, whether a few, or many hundred thousands, all, and many times more than all, of these people will be needed as agricultural and mechanical laborers and helpers in the cultivation of the soil and the utilization of its productions for the benefit of themselves and mankind. They are able to produce rice, sugar cane, coffee, corn, cattle, beautiful woven fabrics, and thrusting and cutting weapons; they manufacture bronze cannon and gunpowder, and give surprising proofs of their ingenuity and industry. Their Moro boats are fashioned and rigged and sailed with the utmost skill, and are admired by all strangers. A race of men who are capable of doing all this and who possess many manly qualities, should be kept alive and not shot down in war. They should be aided and encouraged and taught how to improve their own natural and social condition, and benefit us at the same time. Mohammedans in Turkey and India and Java have proved to be industrious and useful members of the communities. Mohammedan Malays in Sarawak, a British Protectorate in Borneo, perform all the skilled and unskilled labor of that prosperous colony, and are as plainly showing their adaptability for the higher duties and occupations as did the Japanese. The Moros have certainly equal or greater capacity for usefulness.

The report from which this quotation is taken is among those transmitted herewith, and I commend it to special attention. It exhibits the breadth of view and sound judgment which uniformly characterize that officer's work.

#### THE DISPOSITION TO BE MADE OF THE ARMY IN PEACE.

The restoration of the normal conditions of peace, and the return of the greater part of the Army to the United States, have made it possible to resume with increased activity the work of preparing for future wars.

The increase of the Army from 25,000 to a minimum of 60,000 has, of course, made necessary a great increase in barracks, quarters, hospitals, and all the constructions which go to make up an Army post. The accommodations which had been provided before the war with Spain are now quite inadequate, and require to be more than doubled. The work of construction has been pressed vigorously by the Quarter-

master's Department to the extent allowed by the appropriations made by Congress for this purpose.

The policy followed has been rather to increase the size of the posts in which the Army is to be quartered than to increase the number. Two considerations have determined that policy: First, economy of administration, and second, and most important, efficiency of officers and men. The tendency of life in small one or two company posts is narrowing and dwarfing, and such posts can be justified only by necessity. On the other hand, the comparison and emulation between officers and organizations grouped in a large post, the advantages of systematic study and practice in the schools which can be maintained at such posts, the advantage of being under the immediate direction and influence of officers of high rank who can not be scattered among the small posts, but can be collected in the large ones; the practical benefit derived from handling considerable bodies of troops so that company officers may be learning to handle regiments, and regimental officers to handle brigades, and so on—all these considerations, point to the large post as furnishing the conditions of increasing efficiency on the part of both officers and men.

The only argument which has been made against this view is that the scattering of the Army in a great number of small posts would popularize it, and that there ought to be an equitable distribution of the troops among all the different States. I think these propositions may be dismissed with the confident assertion that the Army will be popular and satisfactory to all the States in proportion as it is efficient and economical.

Another line of policy followed by the Department is, so far as practicable, to get the Army posts out of the cities and large towns, and establish them upon larger tracts of cheaper land in the neighborhood of the same cities and towns, so that the men may have the benefit of country air instead of city air, and more room for training and exercise; the neighborhood of the barracks may be under military control; the rum shops and brothels may be pushed farther away from the men; and at the same time the advantages of convenient inspection, transportation and supply, and a reasonable degree of educational and social privileges, may be retained.

In order to secure a definite plan for the distribution of troops and the construction work necessary to provide for their maintenance, a

board was convened in Washington in November last, composed of all the general officers of the Army in the United States, under the following directions:

By direction of the Secretary of War, a board of officers is hereby appointed to meet in Washington, D. C., on the 25th day of November, 1901, to consider and report upon the location and distribution of the military posts required for the proper accommodation, instruction, and training of the Army as organized under the act of February 2, 1901, not including coast fortifications. The board will make recommendations in detail as to which of the existing posts should be retained or abandoned, and of those retained which, if any, should be enlarged and to what extent, and the location, size, and character of such new posts as may be necessary, having due regard in all its recommendations to the proper distribution of the different arms of the service based upon strategic, sanitary, and economical considerations.

The board will also formulate and submit a project for the location, examinations and surveys to be made for the permanent camp grounds provided for by section 35 of the act of February 2, 1901.

This board performed its duties during the months of November, December, January, and February, and its report and recommendations were transmitted to Congress on the 19th of May, and are printed as House Doc. No. 618, Fifty-seventh Congress, first session.

Much delay and difficulty in providing barracks and quarters for the coast-defense artillery has arisen from the policy followed in making appropriations during the earlier years of work upon our coast defenses. With what we can now see to have been unwise economy, the appropriations were in a great number of cases so limited as to permit the purchase of only enough land for the fortifications themselves, leaving the land necessary for barracks, quarters, hospitals, storehouses, and administrative purposes to be acquired in the future. As a natural result, as soon as the Government was committed to an extensive fortification the prices of all the additional land which it needed in the neighborhood were put up immensely, and in order to provide for troops to man the fortifications, the Government has been obliged, after long negotiations, to pay many times as much as the land could have been bought for originally, or to take condemnation proceedings with usually the same result.

To prevent a continuance of this practice an order was made on April 9, 1901, requiring all papers presented to the Secretary of War for approval of the purchase of land connected with the seacoast for-

tifications, to be accompanied by a certificate of the Chief of Artillery, that the proposal presented included all the land which would be required for all purposes of the defense at that point. It is to be hoped that future appropriations for such purposes will be so arranged as to permit a continuance of this policy.

SEACOAST DEFENSES.

Additional guns have been mounted in the coast-defense fortifications during the year as follows: Eight 12-inch, three 8-inch, twenty rapid-fire, thirty-four 12-inch mortars, making a total now mounted of eighty 12-inch, one hundred and twelve 10-inch, eighty-nine 8-inch, one hundred and eight rapid-fire guns, and two hundred and ninety-seven mortars.

There have also been completed and issued, ready to mount, additional guns, as follows: Two 12-inch, three 10-inch, seventy-four rapid-fire, and fifteen mortars, making a total now mounted or ready to mount of eighty-two 12-inch, one hundred and fifteen 10-inch, eighty-nine 8-inch, one hundred and eighty-two rapid-fire, and three hundred and twelve mortars.

The status of emplacements for which funds have been provided by Congress was as follows at the close of the fiscal year 1902:

	12-inch.	10-inch.	8-inch.	Rapid-fire.	12-inch mortars.
Guns mounted .....	80	112	<sup>a</sup> 89	<sup>b</sup> 108	297
Ready for armament .....	16	3	5	<sup>c</sup> 229	55
Under construction .....	9	15	2	146	24
Total .....	105	130	96	483	376

<sup>a</sup> Nineteen of these, which had been mounted temporarily, have since been dismantled.

<sup>b</sup> One temporarily.

<sup>c</sup> Including seventy 6-pounders not requiring permanent emplacements.

In compliance with the direction of the fortifications act of June 6, 1902, a board was constituted in July last, composed of one engineer officer, one ordnance officer, three artillery officers, one naval officer, and one civilian mechanical engineer of high standing, to make a thorough test of disappearing gun carriages. Such tests were made by the board in accordance with the statute. The report of the board was unanimous in favor of the disappearing carriage, and the Board of Ordnance and Fortification has concurred in that approval.

This is the third competent board which has tested and approved the disappearing carriage, and the third time that the Board of Ordnance and Fortification, with widely differing membership on each occasion, has approved it as a type.

When the general plan of coast-defense fortification was adopted by the Endicott board in 1886, the only means then invented for protecting the high-power coast-defense gun and its crew was the steel or chilled cast-iron turret, which would have cost between \$1,000,000 and \$1,100,000 for each pair of 12-inch guns mounted. The first attempt to escape from this enormous expense by a mechanical device which would protect the gun and gunners during the period of loading and expose the gun only at the time of firing was the gun lift, upon which we now have two 12-inch guns mounted at Sandy Hook. It cost about \$525,000, exclusive of the guns, and each of the guns mounted upon it can be fired once in eight minutes and a half. Within a few rods of this gun lift at Sandy Hook we have two 12-inch guns mounted on modern disappearing carriages, at a cost of \$150,000 for the carriages, emplacements and protection of both guns, and each of these guns can be fired ten times in eight minutes and a half.

Satisfactory progress has been made in the installation of search-lights, in developing systems of fire control and direction, and in the application of electricity to the handling of heavy guns and projectiles and ammunition.

The nitrocellulose smokeless powder developed by the Ordnance Department continues to prove satisfactory. Four private firms are engaged in its manufacture, and a considerable reserve has been accumulated.

The test of the Gathmann torpedo gun under the requirement of the fortifications act of March 1, 1901, resulted in an unfavorable report, in which the Board of Ordnance and Fortification has concurred. The statute required the Gathmann gun to be fired in competition with an army 12-inch service rifle, and the firing of the latter weapon exhibited extraordinary progress made by the Ordnance Department toward the perfection of high explosives for the bursting charge of armor-piercing shells, and in the development of fuses for such shells. The ordnance shells from the 12-inch service rifle passed entirely through a 12-inch harveyized steel plate and exploded

on the farther side of the plate. The ability thus demonstrated to send a shell through a ship's armor 12 inches in thickness and detonate the shell within the ship is of course of great defensive value.

It has been the fashion of late to decry mortars as weapons of coast defense, and Congress has recently refrained from appropriations for their further construction. Extensive and thorough tests of mortar firing made last spring at Fort Preble, Portland Harbor, have, however, demonstrated the great accuracy of mortars, and have also shown that their accuracy can be relied upon through a much wider range, both far and near, than was formerly supposed. I think confidence in them should be resumed, and appropriations for their construction and emplacement continued in accordance with the original plan of defense.

Most valuable experience and suggestion and great practical benefit have been received by all branches of the service concerned in coast defense, from a series of joint maneuvers participated in by the Army and the Navy on the New England coast during September. This movement was undertaken on the suggestion of the Chief of Artillery, and took the form of simulated attacks by the Navy upon the defenses at the eastern end of Long Island Sound, at New London, at the entrance of Narragansett Bay, and at New Bedford. They were carried out with the most admirable spirit and efficiency by both branches of the service. The Army was much gratified by the effective participation with them of the First Massachusetts Heavy Artillery and two companies of Connecticut Heavy Artillery; and with the Navy the naval reserves of New York, Connecticut, Rhode Island, and Massachusetts took part. The Thirteenth New York Heavy Artillery was most desirous to take part, but was prevented by a lack of State appropriations. An actual attempt to use tools is the best way to learn whether they are in good order and are complete, and it is also the best way to learn how to use them. The advantage gained in this way by the Engineer, Ordnance, Signal, and Artillery Corps of the Army, and I doubt not also by the officers of the Navy, more than justifies the undertaking and indicates the wisdom of annual repetitions of the exercise at different points upon the coast.

I append hereto a memorandum by the Chief of Artillery, marked "Appendix D," and a memorandum by General MacArthur, marked

“Appendix E,” especially devoted to the general effect of the work upon the efficiency of the Army.

Observers of our coast-defense work sometimes speak of it as defective because it is incomplete. It is indeed incomplete. It is only about half finished. It is a work which requires time and has been begun but recently. Before the war with Spain it proceeded in a very leisurely way. Since the beginning of that war it has been pressed forward with great activity. The work was commenced in 1888; but for the eight years which followed prior to 1896 the total appropriations for the construction of fortifications amounted to but \$3,521,000, or an average of \$440,000 a year, while for the last seven years, beginning with 1896, the appropriations have amounted to \$22,236,000, or an average of \$3,176,000 a year, an annual increase of more than sevenfold. The appropriations for the construction of guns and carriages for seacoast defense for the eight years prior to 1896 were but \$8,100,000 (not including the unsuccessful dynamite gun), an average annual rate of \$1,012,000, while the appropriations for the same purposes for the last seven years were \$24,193,000, or an annual average of \$3,456,000, an annual increase of more than threefold. Out of the \$58,000,000 expended for both classes of work, over \$46,000,000 have been appropriated in the last seven years.

The Endicott board plan of coast defense contemplated the expenditure of over \$100,000,000. Before 1896 we were progressing at a rate which would have required seventy years to complete the defenses according to the plan. Since 1896 we have been progressing at a rate which will finish the defenses according to the plan in fifteen years. With a half-finished work so recent and so rapidly pressed it follows necessarily that a formative process is constantly going on, mistakes are being made and corrected, new experiments are being made, new things are being learned, and many difficult problems remain still unsolved.

It follows also that neither the officers nor the men of the artillery have as yet had much opportunity to become proficient in the use of the new weapons, and there is great need for practical instruction and training in their use.

Another reason why there is special urgency for the training of the artillery is the great preponderance of new and inexperienced officers and men. Before the Spanish-American war we had but five regiments of artillery. We now have a corps which is equivalent to

thirteen regiments, two regiments being added in 1899 and the equivalent of six regiments in 1901. Of course the majority of the officers and the great majority of the men are new. Every lieutenant in the Artillery Corps has come in since the act of February 2, 1901.

The facts which I have now stated make the kind of exercise furnished by the joint Army and Navy maneuvers of last September of the utmost importance. I urge that appropriations to be made by Congress shall be such as to provide for a continuance of the same practice, and to provide for the most liberal allowances of ammunition and projectiles for general target practice with full service charges in which the entire coast artillery can take part. It is a gratifying fact that the Chief of Engineers, Chief of Ordnance, Chief Signal Officer, and Chief of Artillery are working together in hearty cooperation and sympathy to accomplish the desired results, and that their corps are generally working with them, inspired by the same spirit. The time of mutual fault-finding appears happily to have been succeeded by a time of mutual helpfulness.

The progress of events and changes in ordnance and ship construction, since the Endicott Board of 1886 determined upon the plan of coast defense along the lines of which we are now working, have made it necessary to consider the defense of many points not considered by that board. Porto Rico, Culebra, naval and coaling stations in Cuba, and possibly the Danish Islands—all in a region made specially important by the probable construction of the Isthmian Canal—Hawaii, Guam, and the Philippines, and possibly the Lake ports and the St. Lawrence River, should be considered with reference to the construction of defensive works in the same way that the Endicott Board considered our Atlantic and Pacific coasts. I concur in the recommendation of the Chief of Engineers that a similar board should be created for that purpose by Congress, constituted, like the Endicott Board, of the Secretary of War, the Chiefs of Engineers, Ordnance, and Artillery, one high ranking officer of each of those branches of the service, two naval officers of high rank, and two civilians expert in the subject of our foreign commercial relations.

#### FIELD ARTILLERY.

The series of tests and competitive trials which have been conducted for two years past under the direction of the Board of Ordnance and Fortification for the selection of new models of field



gun and carriage have been concluded, and arrangements have been made for the construction of new guns and carriages to the extent of the appropriations now available. The new gun will have a caliber of 3 inches, and will fire a projectile weighing 15 pounds, with an initial velocity of 1,700 feet per second. It will be of the long recoil type, and will use fixed ammunition. It is capable of firing about six times as rapidly as the field guns which we now use, so that one of the new guns will be able to throw as many shells at an enemy as a whole 6-gun battery of the present type. This great increase in the effectiveness of field artillery is of special value to the United States, because we are always weak in artillery in proportion to our infantry. A well-organized army calls for a due proportion between artillery and infantry. When we go to war we can raise a volunteer infantry with great rapidity, but we can not increase our artillery proportionately. An increase in the relative effectiveness of field artillery tends to do away with the resulting disproportion, and makes it possible for us to raise a much larger well-balanced army than we could otherwise.

#### SMALL ARMS.

The Ordnance Department has produced a rifle which it considers an improvement upon the present service rifle. It is clearly superior to the present rifle in some respects. It is a bolt gun, caliber .30, having a clip magazine under the chamber instead of at the side, and therefore better balanced than the present gun. It continues the 220-grain bullet, but increases the charge of powder from 37.6 grains to 43.3 grains. It gives an initial velocity of 2,300 feet per second as against 2,000 of the present rifle, a striking energy at 1,000 yards of 447.9 foot-pounds as against 396.2 for the present rifle. It has a flatter trajectory and weighs about a pound less. I have authorized the construction of 5,000 for issue and practical trial in the service.

The enlargement of the capacity of the Springfield Armory for the manufacture of rifles and the addition at the Rock Island Arsenal of a plant for that purpose are approaching completion. The total producing capacity of the two establishments will then be 650 arms per day of eight hours, and in an emergency they would be capable of producing 1,500 per day.

## SERVICE UNIFORMS.

The great range of the modern rifle, which enables a soldier to kill his adversary with great accuracy at a distance of several miles, if he can distinguish him from the surrounding landscape, has led to a curious reversal of military desires in the matter of dress. Instead of devising things to wear which will make the soldier frightful and awe-inspiring to his enemy, the whole military world is looking for clothing which will make its wearers as inconspicuous as possible. For several years we have been conducting extensive experiments to determine the visibility of different colors and materials under different circumstances and at different distances; and in March last a board of officers was convened to consider the subject of uniforms, and the results of these experiments were submitted to it. The result is the selection, for service uniforms, of an olive-drab, which is found to be, under average conditions, the least visible color at considerable distances, and which, after long-continued trials, the Quartermaster's Department has succeeded in making a fast color for woolen material to meet the requirements of cold climates, as well as for the cotton khaki used in the Tropics. This will be worn in place of the khaki of the present color, and it will be available for both hot and cold climates, the material being varied to suit the climate.

The traditional blue uniform will be retained as dress uniform for both officers and men.

The Board at the same time recommended a number of minor changes in uniforms, the good sense of which has long been apparent: notably, replacing the heavy and uncomfortable helmet for foot and mounted troops by suitable dress and service caps to be worn except where the campaign hat is prescribed, and the substitution of dull bronze for bright buttons and other articles liable to catch and reflect the light, and the use of clouded scabbards and russet leather belts.

The report of the Board has been approved, and the new articles of clothing will be introduced as rapidly as due economy in the disposition of the present stock on hand permits.

## MILITARY EDUCATION.

An examination of the sources from which are drawn the officers of the Army, as now constituted under the act of February 2, 1901, shows

how important it is to go on with the military education of officers in some such general and systematic way as was outlined in my last report. Of the 2,900 officers of the line of the Army, 1818 have been appointed since the beginning of the war with Spain. Of these 1818 but 276 were supplied by the West Point Academy; the remaining 1,542 have come—414 from the ranks, 512 from civil life, and 616 from the volunteers of the war with Spain and in the Philippines.

The volunteers and the enlisted men have of course acquired useful experience, and they were all selected on the ground of their military conduct and intelligence. Yet it is generally true of the whole 1542, constituting more than one-half of all the officers of the line, that they have had no systematic military education. They constitute nearly the entire body of first and second lieutenants. After some years, when their seniors have passed off the stage, they will have to supply our generals and colonels and chief staff officers charged with the instruction, discipline, and command of our forces. Unless the theory of military education under which we have maintained the Academy at West Point for a century is all a mistake, it is very important to give to this class of young officers, now that they are in the Army, some degree of the educational advantages which the West Point men get before they are commissioned. The same will be true of future accessions to the force of officers, for the West Point Academy, even with the recent enlargements, can not be expected to fill more than about two-thirds of the annual vacancies which will occur in the ordinary course of life.

The development of the general scheme of systematic instruction, provided for by the order of November 27, 1901, annexed to my last report, has made satisfactory progress during the year. As soon as the officers selected for the first War College Board could be withdrawn from the other duties in which they were engaged, that board was constituted by the detail of Maj. Gen. S. B. M. Young, Brig. Gen. William H. Carter, Brig. Gen. Tasker H. Bliss, Maj. Henry A. Greene, and Maj. William D. Beach. The plans for the buildings of the new War College and the new Engineers' School, to be erected on the old Washington Barracks Reservation, under authority of the act of June 30, 1902, have been prepared and approved. The building of the necessary sea walls and the filling in of the low ground forming part of both sites were commenced by the Engineer

Department immediately after the passage of the act, and the construction of the buildings will begin presently under the direction of the Corps of Engineers.

In the meantime, the Engineers' School has occupied the old Washington Barracks buildings, and the War College Board has secured a house for temporary use near the War Department. The board has addressed itself especially to reinstating and regulating military instruction in the military schools and colleges of the country, which may serve as a source for future appointments of second lieutenants from civil life; to the establishment of systematic instruction of officers in the Army posts, and to organizing the General Service and Staff College at Fort Leavenworth on the foundation of the Infantry and Cavalry School which existed there before the war with Spain. Seventy-seven officers have been detailed as instructors at the military schools and colleges. Ninety-seven officers have been detailed as students at the General Service and Staff College, and are now in attendance at that institution. Thirty officers are in attendance as students at the Artillery School at Fortress Monroe, ten at the School of Submarine Defense at Fort Totten, and eleven at the Engineers' School at Washington Barracks. The enlargement of accommodations and facilities at these institutions, now in various stages of progress, will make it possible to materially enlarge these numbers.

Undoubtedly the military schools and colleges to which details of officers as instructors are made will be found to differ widely in their thoroughness and efficiency, and the maintenance of thorough inspection and supervision by the War College Board will be essential. It is the purpose of the Department to discontinue details to institutions which, upon such inspection, are found not to come up to the requisite standard, and to give to the graduates of the thorough and efficient institutions a preference in recommendations for appointment as second lieutenants in the Regular Army. The same observation will doubtless apply to the post schools, which will vary according to the capacity and zeal of the commanding officer. The same systematic inspection by the War College Board is designed to hold commanding officers to the same degree of responsibility for an efficient school as for a well-disciplined force.

Annexed hereto is an order by the Secretary of War, dated July 22, 1902, addressed to the officers of the Army, relating to their duties in the matter of military education, marked "Appendix F;" and an order

prepared by the War College Board, dated August 1, 1902, prescribing regulations and the course of instruction in the General Service and Staff College, marked "Appendix G;" and an order prepared by the War College Board, dated August 9, 1902, prescribing regulations for the details to and military instruction to be given by military schools and colleges, marked "Appendix H;" and an order prepared by the War College Board, dated September 22, 1902, prescribing regulations and the course of instruction to be followed in the post schools of the Army, marked "Appendix I." An examination of these prescribed courses will indicate the practical character of the instruction required and the wide range of subjects with which a well-equipped officer must become familiar.

The excellent work done by the Medical Department in the Army Medical School in this city should not pass unnoticed. The school takes the young surgeon, who has already graduated from some regular medical college, and has passed his examination and received a commission in the Medical Corps, and instructs him to adapt his knowledge to the special requirements of military service in surgery, medicine, and hygiene. The general hospital on the Washington Barracks reservation which this school has been using for purposes of special instruction will no longer be available after the construction of the engineers' school at that place. It is very desirable that new and adequate accommodations be provided for the continuance of the hospital at some other point in or near the city, and for the continuance and enlargement of this most important branch of instruction.

The Military Academy at West Point on the 11th of June, 1902, celebrated with appropriate ceremonies the completion of a hundred years of honorable and useful service. The advance of the world in military science, the increasing complexity of the machinery and material used in warfare, and the difficulty of the problems involved in transporting, supplying, and handling the great armies of modern times, make such an institution even more necessary to the country now than when it was founded by the fathers of the Republic a hundred years ago.

The efficiency of the institution and the high standard of honor and devotion to duty which have characterized its graduates justify the continuance of public confidence. The wise liberality of Congress has enabled the institution to begin its second century with the well-founded hope of larger and long-continued usefulness. The present

academic year has opened with 471 cadets on the rolls of the Academy, the largest number ever belonging to it at one time. Under the new regulations relating to admissions, examinations of candidates were held on the 1st of May in this year, at sixteen army posts throughout the country, selected with a view to reducing to a minimum the expenses of candidates in attending. Under the authority of the act of March, 2, 1901, the examinations were made to conform to the courses of study ordinarily covered in the high schools and academies of the country by boys of the average age of appointees to the Academy. Sixty-two cadets were admitted upon certificates from educational institutions in which they had prepared, following the course which has been generally adopted by the colleges and universities of this country.

The curriculum has been modified somewhat, reducing the time expended in pure mathematics and increasing the attention to Spanish, English, and military hygiene; decreasing the theoretical course in philosophy and increasing the time given to chemistry and electricity. The increase of practical instruction has been continued, and a new practice, which I hope will be long continued, has been inaugurated by taking the first class to the battlefield of Gettysburg, where for several days in April they studied the lessons of that great conflict upon the field.

The discipline has been good and the practice of hazing appears to have been abandoned. But one case in which it was attempted, and that in a mild form, was brought to the attention of the authorities of the Academy during the year. The offending cadet was tried by court-martial, and being found guilty was dismissed, pursuant to law.

The provision of the Military Academy act of June 28, 1902, authorizing the enlargement and improvement of the plant at West Point upon a plan involving a total expenditure of \$5,500,000, has caused much solicitude by the Department and by the officers of the Academy, lest in rearranging and rebuilding a result might be reached out of harmony with the historic traditions of the institution and the beauties of the site, with its mountains and plain and river. After much consideration the following method of working out the plan has been adopted: A board composed of officers of the Academy was convened to prepare in detail a statement of the practical requirements of the institution which were to be met by the enlargement and rearrangement.

Upon the coming in of that report, ten of the leading architects of the country were invited to submit in competition general preliminary plans showing the proposed arrangement of buildings and treatment of the ground to meet the various requirements of the Academy, based upon the data thus furnished, together with an indication of the architectural treatment of the separate buildings. From the plans thus submitted one will be selected, and the author of that plan will be expected to develop it into the complete plan authorized by the statute. Thereafter, as the statute requires, the work will proceed with the assistance of a consulting architect, who will naturally be either the successful competitor or some one connected with his establishment.

#### THE MILITIA SYSTEM.

Early in the last session a bill was prepared by the War Department, embodying the views expressed in my last report, upon the treatment of the National Guard of the several States by the Federal Government, the relation of the Guard to the militia and volunteer systems, and preparation in advance for the organization of volunteers in time of war. This bill was submitted to the chairman of the Committee on Military Affairs of the Senate, the chairman of the Committee on Militia of the House, and to a convention of officers of the national guard organizations which met in Washington in January, 1902. The convention appointed a special committee to consider and report upon the proposed bill, and after some modifications it was reported favorably to the convention, which after thorough discussion adopted a resolution approving the measure and requesting its enactment by Congress. The bill thus approved was introduced in the Senate by Mr. Hawley, and in the House by Mr. Dick, who rendered invaluable service in the framing and advocacy of the measure. The House Committee on Militia considered it with great care, and with extensive and improving additions returned it to the House with a unanimous report in its favor, and it was passed by the House. It is now pending before the Committee on Military Affairs of the Senate (H. R. 15345, Fifty-seventh Congress, first session).

I earnestly urge that this measure be made a law. It is really absurd that a nation which maintains but a small Regular Army and depends upon unprofessional citizen soldiery for its defense should run along as we have done for one hundred and ten years under a militia law which never worked satisfactorily in the beginning, and

which was perfectly obsolete before any man now fit for military duty was born. The result is that we have practically no militia system, notwithstanding the fact that the Constitution makes it the duty of the Federal Congress "to provide for organizing, arming, and disciplining the militia," and "for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions." The National Guard organizations of the several States have grown up in default of any national system and to meet local requirements. Their relations to the Federal Government have never been defined or settled. The confusion, controversy, and bad feeling arising from this uncertain status were painfully apparent at the beginning of the war with Spain; and it must always be the same until Congress shall exercise its constitutional power over the subject. Repeated efforts have been made to accomplish this result. Two years after the passage of the present law of 1792, President Washington addressed Congress on the subject in these words:

The devising and establishing of a well-regulated militia would be a genuine source of legislative honor and a perfect title to public gratitude. I therefore entertain a hope that the present session will not pass without carrying to its full energy the power of organizing, arming, and disciplining the militia, and thus providing, in the language of the Constitution, for calling them forth to execute the laws of the Union, suppress insurrections, and repel invasions.

President Jefferson, eleven years later, in 1805, said:

I can not, then, but earnestly recommend to your early consideration the expediency of so modifying our militia system as, by a separation of the more active part from that which is less so, we may draw from it, when necessary, an efficient corps for real and active service, etc.

And in 1808 he said:

For a people who are free, and who mean to remain so, a well-organized and armed militia is their best security. It is therefore incumbent on us at every meeting to revise the condition of the militia, and to ask ourselves if it is prepared to repel a powerful enemy at every point of our territories exposed to invasion. Some of the States have paid a laudable attention to this subject; but every degree of neglect is to be found among others. Congress alone has power to produce a uniform state of preparation in this great organ of defense. The interest which they so deeply feel in their own and their country's security will present this as among the most important objects of their deliberation.

President Madison said in 1816:

An efficient militia is authorized and contemplated by the Constitution and required by the spirit and safety of free government. The present organization of our militia is universally regarded as less efficient than it ought to be made, and no organization



Fifth. Such further volunteers as it may be necessary to call forth from the States, according to their respective quotas, and commanded by regimental officers appointed by the governors of the States.

A conservative estimate of the number which would be included in the first four classes of troops, who have already had military service and will be available for immediate action, is from 250,000 to 300,000.

The number of the fifth class—volunteers who may or may not have had previous service—has no limit, except the possibilities of transportation and supply.

The capacity of the National Guard organizations in general to serve effectively as organizations, either militia or volunteer, in the national army in case of war depends very largely upon the aid which they receive from the National Government. The Guard is now armed with a variety of weapons of different kinds and calibers, including two different calibers of the obsolete Springfield rifle, the Lee, the Remington-Lee, the Winchester, and the Krag-Jørgensen. In several instances different National Guard organizations of the same State are armed with different weapons of different calibers. Among all the 115,000 National Guardsmen of the different States and Territories only about 4,000 have the modern service rifle of the United States Army. With the exception of these 4,000 rifles the arms of the Guard would be practically worthless in time of war, not merely because they are inferior but because the Guard would have to look to the United States Government for their ammunition, and the Government will have no ammunition for the kind of rifles they carry: they would have to look to the Government to replace the arms lost or broken in service, and the Government will be unable to supply the same kind. The militia and the volunteer National Guard organizations in general would, therefore, be obliged to throw away their present arms at the beginning of a war and get reequipped with weapons the use of which they had never learned.

#### THE MILITIA AND COAST DEFENSE.

One of the most valuable services which can be rendered to the country by its militia, and the one which can be made the easiest and most natural for it to render, is to supplement the regular force in manning the coast defenses in time of war. Our present regular force is none too large to take care of the guns and the machinery of the fortifications in time of peace. It will be quite insufficient in war.

that the General Government shall furnish to the Guard the same arms which it furnishes to the Regular Army, and for the voluntary participation by the Guard with the Regular Army in maneuvers and field exercises for brief periods in each year. The bill also contains provisions making the National Guard organizations which choose voluntarily to go beyond the limitations of militia service in effect a First Volunteer Reserve, and further provisions for the enrollment of a Second Volunteer Reserve not exceeding 100,000, to be composed of trained men who have served in the National Guard or in the Regular Army or the volunteer armies of the United States. These would constitute the first volunteer regiments after the National Guard Volunteers under any call by Congress. It also provides for ascertaining by practical tests, in advance of a call for volunteers, the fitness of members of the National Guard, graduates of the military schools and colleges, and other citizens with military training, to hold volunteer commissions, thus constituting an eligible list from which in case of a call for volunteers the officers of the Second Reserve must be taken, and the officers of the general body of volunteers may be taken. With the system provided for by the bill carried into effect we should be able while maintaining a standing army of but 60,000 men to put a force of at least 250,000 well-trained men into the field instantly upon a declaration of war, and the cost would be less than to maintain but a few additional regiments of regular troops.

The military force of the United States would then be as follows:

First. The Regular Army, capable of enlargement by the President, when he sees war coming, to 100,000.

Second. Such of the organized militia (already trained as a national guard, and just as valuable, when used in the manner hereinafter indicated, as any other troops) as the President shall see fit to call into the service of the United States for not exceeding nine months, to repel invasion.

Third. A First Volunteer Reserve, composed of such companies, troops, and regiments of the organized militia already trained as a national guard as volunteer by organizations with all their officers and men.

Fourth. A Second Volunteer Reserve, composed of men previously enrolled and having previous military training in the National Guard, the Regular Army or the Volunteer Army, and commanded by officers whose fitness has been previously ascertained by practical tests under the provisions of the militia act.

Fifth. Such further volunteers as it may be necessary to call forth from the States, according to their respective quotas, and commanded by regimental officers appointed by the governors of the States.

A conservative estimate of the number which would be included in the first four classes of troops, who have already had military service and will be available for immediate action, is from 250,000 to 300,000.

The number of the fifth class—volunteers who may or may not have had previous service—has no limit, except the possibilities of transportation and supply.

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#### THE MILITIA AND COAST DEFENSE.

One of the most valuable services which can be rendered to the country by its militia, and the one which can be made the easiest and most natural for it to render, is to supplement the regular force in manning the coast defenses in time of war. Our present regular force is none too large to take care of the guns and the machinery of the fortifications in time of peace. It will be quite insufficient in war.

The number of artillerymen for which Congress was asked to provide in the act of February 2, 1901, was intentionally made small in view of the manifest practicability of supplementing it by a well-trained militia force, available in case of threatened attack. Manning the coast fortifications is constitutional militia work, for it is always to repel invasion. It can be undertaken by citizens living in the neighborhood of the fortifications with less disturbance and sacrifice than any other military duty, because it does not take them far away from their homes and their business.

The handling of the modern high-power and rapid-fire guns and the complicated machinery by which they are worked requires, it is true, special training, but there is no trouble in securing a reasonable degree of that for heavy artillery militia organizations. For the past three years I have been following closely the work of the First Massachusetts Heavy Artillery, which has been admitted each year to one or another of the defenses on that coast for practice. The officers at all the fortifications speak in high terms of the intelligence and readiness with which they have acquired facility in doing the work. Many of them are mechanics and take naturally to the machinery of defense. On the other hand, the members of the regiment evidently take great and sustained interest and satisfaction in the performance of their duties. The same is true of the Connecticut artillery organization which took part in the recent seacoast maneuvers, and of the Thirteenth New York Heavy Artillery, and I doubt not of other organizations with which I am less familiar.

If the militia bill above described becomes a law, an effort should be made to procure the organization of a National Guard force of heavy artillerymen in the neighborhood of each coast-defense fortification, with the understanding that whenever the President finds occasion to call out militia to repel invasion that organization will be called into that fortification. In the meantime an immediate and special relation should be established between the militia organization and the fortification for the purpose of practice and instruction. They should be made as familiar as possible with the use of the guns and methods of defense at that particular point. In many cases it will be practicable to give them facilities for meeting and keeping their equipment on the military reservation, which would make unnecessary any outside armory for their use. Such an organization could readily perform all its duties to the State serving as infantry, but it could at the same

time be distinctly known and constantly prepared for service as the militia reserve of the fortification with which it sustains the relations described.

Another very important function to be performed by militia, and having the same characteristic of not requiring militiamen to render any service except for the defense of their homes, is the service to be rendered by infantry in the defense of our coast fortifications against attack in reverse by land. That is a subject which ought to receive early and earnest attention on the part of the Federal Government. It is of great importance that an adequate force should be ready to perform that service, should be ready to take their places without confusion, and that there should be a perfect understanding as to where the force is to come from, where they are to be posted, and how they are to be supplied and maintained.

The National Guard contains two widely different elements. One is composed of men who wish to perform their duty to the State and as members of the militia, but do not wish, or do not feel at liberty, to leave their families or their business interests and become soldiers for all purposes, liable to be sent away for distant military operations. The other element wish to go wherever there is adventure and a chance to fight. The amount of strictly local military work of the highest importance to be done in case of war is so great that the whole National Guard force, of the seacoast States at all events, can be made just as useful as if they all became volunteers for all purposes. In order to accomplish this, however, there should be a careful prearrangement as to the distribution of duties.

#### FORT RILEY MANEUVERS AND CAMP SITES.

A good example of what can be done in the way of joint maneuvers and exercise by regulars and militia, to the great advantage of both, in preparation for general military service, has been furnished by the concentration and exercise of troops at Fort Riley in the latter part of September. Three regiments of regular infantry, two regiments of infantry of the National Guard of Kansas, a battalion of Colorado infantry, a regiment of regular cavalry, five batteries of regular field artillery, two batteries of Kansas field artillery, a battalion of regular engineers, and detachments of the regular Signal Corps and Hospital Corps were concentrated at that point and engaged for from five days to two weeks in practicing field operations, involving work from the

simplest outpost and patrol duties up to and including maneuvers by brigade and division.

A large number of National Guard officers, besides those commanding troops in the maneuvers, and representing twenty different States and two Territories, were present. A large number of National Guard troops of other States would have been present had there been any appropriations to pay their expenses. Both the officers of the Guard and of the Regular Army unite in the opinion that both branches of the service received great benefit; and the good understanding and friendly feeling established between the two classes of officers who were present at the maneuvers are most gratifying. Jealousy, superciliousness, or a suspicion of it, and bad feeling between regular and volunteer officers have been some of the most fruitful causes of dissension and hindrance to general military efficiency in this country. The best way to put an end to this is to bring the officers together and get them to know each other and work with each other with a common purpose.

General Bates, the commander of the Department of the Missouri, says in his report:

The value of such concentrations and maneuverings can not be overestimated, either to the regular forces or to the National Guard, as it gives to both an opportunity for observing the appearance and formation of a division under various conditions, and affords to officers of the several arms of the service a chance for seeing the evolutions and capabilities of the other arms, and enables them to enlarge their circle of military acquaintanceship, which can rarely be done without absorbing new ideas upon military subjects. During the exercises under discussion young officers had constantly impressed upon them the value of studying the terrain, with a view to protecting their commands by the accidents of the ground, and of seizing advantageous positions. The lessons learned in this connection at Fort Riley may be the means of saving many lives in future hostilities. The power of modern weapons was well illustrated and accentuated by each opponent maneuvering for position.

The report quoted from is annexed hereto, marked "Appendix K."

At the end of the encampment the officers representing Maryland, Texas, Nebraska, Pennsylvania, New Jersey, North Dakota, Michigan, Rhode Island, Massachusetts, Ohio, Indiana, Georgia, Illinois, California, Florida, New York, Virginia, and Oklahoma met and passed resolutions expressing their opinion as to the benefit of what had been done.

A copy of the resolutions, signed by the respective officers, is annexed hereto marked "Appendix L."

It is to be hoped that before another autumn the passage of the militia bill will enable the War Department to facilitate the attendance of greater numbers of National Guard troops for a repetition of these maneuvers on a larger scale.

Section 35 of the act of February 2, 1901, directed the Secretary of War to cause preliminary examinations and surveys to be made for the purpose of selecting four sites with a view to the establishment of permanent camp grounds for instruction of troops of the Regular Army and National Guard. In compliance with this direction such preliminary examinations and surveys have been made at places selected by the board of general officers upon military posts and camp sites already mentioned in this report; and on the 19th of May, 1902, the reports of the examinations and surveys were transmitted to Congress. (House Doc. No. 618, Fifty-seventh Congress, first session). The sites selected by the board were at Fort Riley, Kans., where the present reservation consists of about 20,000 acres; one in the vicinity of Chickamauga Park, Ga., where a not very expensive addition to the present park grounds now owned by the Government would suffice; one in the Conewago Valley in Lebanon, Dauphin, and Lancaster counties, Pa.; and one on the Nacimiento Ranch, in Monterey and San Luis Obispo counties, Cal.

Reports of examinations and estimates of the cost of several other sites in Indiana, Kentucky, New Mexico, Texas, and Wisconsin were also transmitted for the consideration of Congress. It is to be hoped that Congress will proceed to carry out the design of the act of February 2, 1901, by authorizing the purchase of a sufficient number of sites in different parts of the country to make it possible to give to the National Guard of all the States, and to the regular troops stationed in each section, the benefits of annual maneuvers similar to those which have been inaugurated at Fort Riley.

#### GENERAL STAFF.

The most important thing to be done now for the Regular Army is the creation of a general staff. I beg to call attention to the remarks made upon this subject under the head of "Improvement of Army organization" in the report for 1899 and under the head of "General staff" in the report for 1901. Since the report for 1899 was made many of the important measures then recommended for the greater efficiency of the Army have been accomplished or are in course of

establishment under authority conferred by legislation. Our mili-

tary system is, however, still exceedingly defective at the top. We have a personnel unsurpassed anywhere, and a population ready to respond to calls for the increase of the personnel in case of need, up to the full limit at which it is possible to transport and subsist an army. We have wealth and a present willingness to expend it reasonably for the procurement of supplies and material of war as plentiful and as good as can be found in any country. We have the different branches of the military service well organized, each within itself, for the performance of its duties. Our administrative staff and supply departments, as a rule, have at their heads good and competent men, faithful to their duties, each attending assiduously to the business of his department.

But when we come to the coordination and direction of all these means and agencies of warfare, so that all parts of the machine shall work true together, we are weak. Our system makes no adequate provision for the directing brain which every army must have, to work successfully. Common experience has shown that this can not be furnished by any single man without assistants, and that it requires a body of officers working together under the direction of a chief and entirely separate from and independent of the administrative staff of an army (such as the adjutants, quartermasters, commissaries, etc., each of whom is engrossed in the duties of his own special department). This body of officers, in distinction from the administrative staff, has come to be called a general staff. There has been much misunderstanding as to the nature and duties of a general staff. Brig. Gen. Theodore Schwan, in his work on the organization of the German army, describes it as follows:

In Prussia, at least, the term has been exclusively and distinctively applied, since about 1789, to a body of officers to whom, as assistants to the commander in chief and of his subordinate generals, is confided such work as is directly connected with the designing and execution of military operations. That in Germany, as elsewhere, chiefs of special arms, heads of supply departments, judge-advocates, etc., form an important branch of the higher commands, goes without saying, but they are not included in the term "general staff." Clausewitz's dictum that the general staff is intended to convert the ideas of the commanding general into orders, not only by communicating the former to the troops, but rather by working out all matters of detail, and thus relieving the general from a vast amount of unnecessary labor, is not a sufficient definition of general staff duties, according to Von Schellendorf (upon this question certainly the better authority), as it fails to notice the important obligation of the general staff officer of constantly watching over the effectiveness of the troops, which would be impaired by a lack of attention to their



material welfare. Out of this obligation grows, he says, the further duty of furnishing to the heads of the supply departments and other officers attached to headquarters such explanations touching the general military situation, or the effect of a sudden change therein, as will enable them to carry out intelligently what is expected of them. The general staff thus becomes a directing and explaining body, and its chief, therefore, is in some respects the head of the whole staff. It follows that of the two terms, staff and general staff, the Germans regard the former as the more comprehensive one and as embracing the latter.

It is conceded on all hands that the almost phenomenal success that has attended the German (Prussian) arms during the last thirty years is due in a large degree to the corps of highly trained general staff officers which the German army possesses.

Neither our political nor our military system makes it suitable that we should have a general staff organized like the German general staff or like the French general staff; but the common experience of mankind is that the things which those general staffs do, have to be done in every well-managed and well-directed army, and they have to be done by a body of men especially assigned to do them. We should have such a body of men selected and organized in our own way and in accordance with our own system to do those essential things. The most intelligible way to describe such a body of men, however selected and organized, is by calling it a general staff, because its duties are staff duties and are general in their character.

The duties of such a body of officers can be illustrated by taking for example an invasion of Cuba, such as we were all thinking about a few years ago. It is easy for a President, or a general acting under his direction, to order that 50,000 or 100,000 men proceed to Cuba and capture Havana. To make an order which has any reasonable chance of being executed he must do a great deal more than that. He must determine how many men shall be sent and how they shall be divided among the different arms of the service, and how they shall be armed, and equipped, and to do that he must get all the information possible about the defenses of the place to be captured and the strength and character and armament of the forces to be met. He must determine at what points and by what routes the place shall be approached, and at what points his troops shall land in Cuba; and for this purpose he must be informed about the various harbors of the island and the depth of their channels; what classes of vessels can enter them; what the facilities for landing are; how they are defended; the character of the roads leading from them to the place to be attacked; the character of the intervening country; how far it is healthful or unhealthful; what the climate is liable to be at the season

of the proposed movement; the temper and sympathies of the inhabitants; the quantity and kind of supplies that can be obtained from the country; the extent to which transportation can be obtained, and a great variety of other things which will go to determine whether it is better to make the approach from one point or from another, and to determine what it will be necessary for the Army to carry with it in order to succeed in moving and living and fighting.

All this information it is the business of a general staff to procure and present. It is probable that there would be in such case a number of alternative plans, each having certain advantages and disadvantages, and these should be worked out each by itself, with the reasons for and against it, and presented to the President or general for his determination. This the general staff should do. This can not be done in an hour. It requires that the staff shall have been at work for a long time collecting the information and arranging it and getting it in form to present. Then at home, where the preparation for the expedition is to be made, the order must be based upon a knowledge of the men and material available for its execution; how many men there are who can be devoted to that purpose, from what points they are to be drawn, what bodies of troops ought to be left or sent elsewhere, and what bodies may be included in the proposed expedition; whether there are ships enough to transport them; where they are to be obtained; whether they are properly fitted up; what more should be done to them; what are the available stocks of clothing, arms and ammunition, and engineers' material, and horses and wagons, and all the innumerable supplies and munitions necessary for a large expedition; how are the things to be supplied which are not ready, but which are necessary, and how long time will be required to supply them.

All this and much more necessary information it is the business of a general staff to supply. When that has been done the order is made with all available knowledge of all the circumstances upon which the movement depends for its success. It is then the business of a general staff to see that every separate officer upon whose action the success of the movement depends understands his share in it and does not lag behind in the performance of that share; to see that troops and ships and animals and supplies of arms and ammunition and clothing and food, etc., from hundreds of sources, come together at the right times and places. It is a laborious, complicated, and difficult work, which requires a considerable number of men whose special business it is and who are charged with no other duties.

It was the lack of such a body of men doing that kind of work which led to the confusion attending the Santiago expedition in the summer of 1898. The confusion at Tampa and elsewhere was the necessary result of having a large number of men, each of them doing his own special work the best he could, but without any adequate force of officers engaged in seeing that they pulled together according to detailed plans made beforehand. Such a body of men doing general staff duty is just as necessary to prepare an army properly for war in time of peace as it is in time of war. It is not an executive body; it is not an administrative body; it acts only through the authority of others. It makes intelligent command possible by procuring and arranging information and working out plans in detail, and it makes intelligent and effective execution of commands possible by keeping all the separate agents advised of the parts they are to play in the general scheme.

In creating a general staff I think we should change the designation of the officer whom we have called the Commanding General of the Army to Chief of Staff, and at the same time enlarge his powers by giving him the immediate direction of the supply departments, which are now independent of the Commanding General of the Army and report directly to the Secretary of War. The position of the Commanding General of the Army is not created by statute. It depends entirely upon executive order, and it could be abolished at any time by the President and the position of Chief of Staff could be created in its place. Legislative action, however, is desirable in two directions. One is to provide for the performance of duties of the president of the Board of Ordnance and Fortification and the president of the Board of Commissioners of the Soldiers' Home, both of which have been attached by statute to the position of the Commanding General of the Army. The other line of legislative action needed is to authorize the control of the Secretary of War over the supply departments to be exercised through the Chief of Staff. This probably could not be done except by Congress.

The change of title from "Commanding General of the Army" to "Chief of Staff" would be of little consequence were it not that the titles denote and imply in the officers bearing them the existence of widely different kinds of authority. When an officer is appointed to the position of "Commanding General of the Army" he naturally expects to command, himself, with a high degree of inde-

pendence, following his own ideas rather than the ideas of others. We cannot ordinarily expect an officer placed in such a position and thus endowed with what purports to be the right and title to command, not to stand up for his right to really command and not to regard any attempt to control his action or limit his power as unjustifiable interference.

The title of Chief of Staff, on the other hand, denotes a duty to advise, inform, and assist a superior officer who has command, and to represent him, acting in his name and by his authority in carrying out his policies and securing the execution of his commands. The officer who accepts the position assumes the highest obligation to be perfectly loyal to his commander, to exclude all personal interest from his advice and representation, and to try, in the most whole-hearted way, to help him to right conclusions, and to successful execution of his policies even though his conclusions may not agree with the advice given. For the successful performance of his duties the chief of staff must have the entire confidence of his commander. In proportion as he merits that confidence, the chief of staff gradually comes to find his advice usually accepted, and to really exercise the authority of his commander, subject only to the most general directions, just as Von Moltke exercised the authority of King William of Prussia as his chief of staff.

Experience has shown that it is impossible for any officer to really exercise in this country, in time of peace, the powers which appear and are assumed to be conferred along with the title of "Commanding General of the Army." This follows from the constitution of our Government. The Constitution requires the President to be the commander of the Army, and a great variety of laws require the Secretary of War, who directly represents the President, to supervise and direct the expenditure of the vast sums of money appropriated annually by Congress for the support of the Army. As every important movement requires the use of money, so long as the Secretary of War performs this duty faithfully he must practically control the operations of the Army in time of peace, and there can not be any independent command of the Army, except that which the President himself exercises over the Secretary of War and everybody else in the military establishment. It is because Congress has always looked to the civilian Secretary at the head of the War Department to hold the purse strings, that the laws require all the great departments

which build the fortifications and furnish the arms, supplies, and munitions of war, and actually expend the money for those purposes, such as the Engineer, Ordnance, Quartermaster's, and Subsistence Departments, to act under the direction of the Secretary, and withhold from the officer who is called "Commanding General of the Army" all control over those departments.

This way of treating the expenditure of money is an expression of the ingrained tendency of the American people to insist upon civilian control of the military arm. Our fathers inherited that from England and we have always held to it. It is not likely to be changed in substance. One result of the arrangement is that the officer who is called "Commanding General of the Army" can not in time of peace really exercise any substantial power at all unless he acts in conformity to the policy and views of the Secretary of War, acting under the direction of the President; that is to say, he can not exercise any independent command; and this must always be so as long as the Secretary of War performs the duties which are imposed upon him by law and which are essential to the maintenance of civilian control over the military establishment. It was the inability to exercise the power which the title of "Commanding General of the Army" appears to carry with it, but which does not really exist, that led General Scott to leave Washington and establish his headquarters in New York and General Sherman to remove to St. Louis, both of them abandoning the attempt to do anything in connection with the administration of the Army in Washington. And this difficulty has been the cause of almost constant conflict and bitter feeling in the administration of the Army for the past fifty years, to the very great injury of the service and very great loss of efficiency.

It does not follow, however, that the principal and most trusted general of the army can not exercise a great and commanding influence in the control of the army, and practically manage it in all military matters. What does follow is that he can do this only by abandoning the idea of independent command and by assuming the position and performing the functions which I have described as belonging to a chief of staff. General Schofield did this with entire success and rendered great service to the country by doing so. I quote his own words in describing the course he followed:

Recent experience has served to confirm all the results of my life-long study and large experience that the proper position for the senior officer of the Army on duty

at Washington is not that of commanding general, a position which is practically impossible, but that of general in chief, which means in fact chief of staff to the President. The title of general in chief was a permanent one during the entire history of the country up to the time when General Grant became Lieutenant-General.

When I became the commanding general I addressed to the President a letter in which I pointed out to him what had been the result of my study and experience, and saying that the only way was to abandon entirely, which I did during my seven years of service, all pretense of being the commanding general and to content myself with acting as the chief of staff of the Army under the Secretary of War and the President. The result was that perfect harmony prevailed during my time, and I did exercise a legitimate influence in command of the Army, this because I did not claim to exercise anything which the law did not give me.

Everybody is not as self-restrained and sensible as General Schofield, and the best way to secure from others the same kind of good service that he rendered, is to give the officer from whom it is expected a designation which indicates what he is really to do.

#### TRANSPORT SERVICE.

The reduction of the force in the Philippines has made possible a large reduction of the transport service on the Pacific. The regular service between San Francisco and Manila has been reduced from bimonthly to monthly sailings. Marked economies have been effected in the conduct of the business in San Francisco. Several ships have been sold, although after most extensive and painstaking advertising very inadequate prices have been realized. Three ships, the *Hancock*, *Relief*, and *Lawton*, have been turned over to the Navy Department, which could make profitable use of them, and one, the *Grant*, has been turned over to the Engineer Corps, which can save a hundred thousand and odd dollars more than the ship could be sold for, by using her in river and harbor work. I ask that authority be given for charging the fair value of these ships to the naval and river and harbor appropriations, respectively, and crediting them to the appropriation for transportation of the Army against which they now stand charged.

In October bids were invited from commercial lines for transportation of passengers and freight for the Army between San Francisco, Portland, Seattle, and Tacoma and Manila, until June 30, 1903. A number of bids have been received, but the comparative advantage of operating under them has not yet been worked out, and no contract has been awarded. As rapidly as it becomes apparent that the Government business can be done more economically in any part, or as a whole, by this method, it is the purpose of the Department to follow the same

course which has been followed upon the Atlantic in discontinuing the use of Government transports, and to put the business in the hands of commercial lines on the basis of open competition.

I am satisfied that it is practicable for private shippers to do all ordinary business much cheaper than it is possible for the Government to do it, under the limitations which rest upon Government action, and that they can afford to do the business for less than it costs the Government and still make a profit. At the same time by following this method the Government will be aiding to build up regular commercial lines between the Pacific coast and Manila, which is much to be desired.

#### PROMOTION OF INDIVIDUAL ECONOMY IN THE ARMY.

The act of May 15, 1872, under which the Government acts practically as a savings bank for enlisted men, has been very beneficial in its operation. Under that law enlisted men may deposit their savings, in sums not less than \$5, with paymasters, and upon deposits of not less than \$50, remaining for a period of six months or longer, interest is paid at the rate of 4 per cent per annum. Without some such provision, under the ordinary conditions of army life, the soldier would have no means of investing or taking care of any savings from his pay, and the tendency would be to spend the pay, whenever opportunity offered, up to the full limit.

Under this law deposits of enlisted men's savings for the past four years and the amounts of principal and interest paid to enlisted men against deposits on their leaving the service have been as follows:

Fiscal year ending June 30—	Number of separate deposits.	Aggregate amount of deposits.	Number men paid their deposits on discharge.	Principal paid.	Interest paid.
1899.....	37,842	\$1,496,762.31	28,508	\$988,774.63	\$61,273.95
1900.....	91,461	3,215,544.66	27,571	1,028,146.34	43,234.89
1901.....	111,004	3,438,529.11	78,948	2,955,169.39	114,750.37
1902.....	80,883	2,660,250.66	104,109	3,002,424.24	147,441.81
Total.....		10,811,086.74	239,136	7,974,514.60	366,701.02

The amount of savings reported by the Paymaster-General as remaining in the Treasury to the credit of enlisted men on the 30th of June, 1902, was \$4,269,244.81. The effect of this arrangement has been to promote economy, discourage useless and profligate expendi-

ture, and to give the men who leave the service an accumulation upon which to start in civil life.

I concur in the recommendation of the Adjutant-General that the privilege of this statute should be extended to officers. They are subject to very much the same conditions, preventing them from readily caring for or investing the small savings which the practice of economy may reserve from their salaries, and the natural tendency of such conditions is to prevent their economizing. When an officer has a natural tendency to economy and accumulation he finds himself confronted by a long-established policy of the Department, which discourages any participation in business enterprises by the officers of the Army, and which seems to be wise. If officers invest money they naturally put it into enterprises in the neighborhood of their stations, and they become involved in business affairs which are liable to develop interests inconsistent with their official duties.

The conditions of military life are such that officers of the Army have not the training or the knowledge of business affairs to make them, as a rule, successful in their investments. Many most distressing cases of demoralization of officers of good natural parts, and originally of bright promise, have come from their becoming involved in debt through ill-advised business investments which have been unsuccessful, or which have led to extravagance of living by reason of sanguine expectations of profit never realized. It is of the highest importance that the officers of the Army should live within their means, and whatever measures encourage economy tend toward that end, and promote good habits, attention to duty, efficiency, and good administration of military affairs.

The frequent changes which are necessary for the officers of our small Army and the very great distances which they are obliged to travel, often make an order for a change of station work really great hardship by requiring the officer to pay the cost of transporting his furniture above the limit allowed by law as a charge upon the Treasury. The deterioration of the furniture by frequent removals is also great. I think it desirable that the same course should be adopted for officers of the Army which is followed by the Navy as to its officers who occupy public quarters on shore, and that the Government should supply the heavy furniture for officers' quarters.

The Government, buying the furniture in large quantities, could get it at a very much smaller first cost than the officers can; the fur-



niture, remaining permanently in the same quarters, would depreciate much less rapidly than when it is moved about from post to post, and the cost of transportation, which is now paid partly by the Government and partly by the officer, would be altogether saved. The saving to the officer would undoubtedly make it practicable for him to pay a moderate rental to the Government for the use of the furniture sufficient to constitute a renewal fund and perhaps to reimburse the original expense. I annex hereto, marked "Appendix M," a memorandum addressed to the Quartermaster-General on the 16th of October, 1902, calling for information on this subject, and a memorandum by that officer in reply, dated November 5, 1902. I hope that the subject will receive the favorable consideration of Congress.

#### THE CANTEEN.

Referring to the operation of section 38 of the act of February 2, 1901, which prohibits the sale of beer and light wines in post exchanges, I said in my last report that a great body of reports had been received which indicated that the effect of the law was unfortunate, but that I thought a sufficient time had not elapsed to give the law a fair trial, and that the observation and report of its working would be continued during the ensuing year.

A great number of additional reports have now been received, and they confirm the impression produced by the earlier reports. I am convinced that the general effect of prohibiting the use of beer and light wines within the limited area of the army post is to lead the enlisted men to go out of the post, to frequent vile resorts which cluster in the neighborhood, to drink bad whisky to excess, and to associate intimately with abandoned men and more abandoned women; and that the operation of the law is to increase drunkenness, disease of the most loathsome kind, insubordination and desertion, and moral and physical degeneration.

These reports are ready to be sent to Congress whenever that body desires to consider the subject.

#### ALASKAN TELEGRAPH SYSTEM.

The Signal Corps has exhibited great activity, under circumstances of great difficulty, in pressing forward the construction of the system of military telegraph lines in the Territory of Alaska, under the act of May 26, 1900. They have built and put in working order in Alaska, within a period of twenty-four months, 1,121 miles of land

lines and submarine cables. When the exceedingly difficult physical conditions within the Territory are considered, and the labor and hardships which the officers and men of the corps encountered, are appreciated, the construction of this telegraph system must be regarded as an additional illustration of the tireless energy and indomitable spirit which characterize this branch of our service. Efforts were made to introduce wireless telegraphy in Alaska, and a contract was made for the establishment of communication according to the Fessenden system between Nome and St. Michael. The work was to be completed by the 1st of October, 1902, but the contract was not performed.

I wish to call especial attention to the importance of a cable between the northwestern coast of the State of Washington and the southern point of our Alaskan territory, so as to connect the telegraph system of the United States with the telegraph system in Alaska. The Government of the United States is maintaining troops in Alaska at various points. It is responsible for the maintenance of order. Disturbances are always liable to occur in new mining camps, and there is always a possibility of their occurring along a frontier line. Our only present means of communicating by telegraph with our officers, or with anyone concerned in the government of Alaska, is over the Canadian land lines.

#### MILITARY REPRESENTATIVES IN EUROPE.

In June last the War Department received, through the State Department, from His Majesty the German Emperor, a courteous invitation for Maj. Gen. Henry C. Corbin, Maj. Gen. S. B. M. Young, and Brig. Gen. Leonard Wood to attend the autumn maneuvers of the Prussian army as the guests of the German Emperor. The invitation was accepted, and the officers named were directed to attend the maneuvers. Acknowledgment is due for the great courtesy which was shown them by the Emperor, and by all officers of the German army whom they met. Similar acknowledgments are due to the Governments of France and Great Britain, and to the officers of their armies, for many courtesies shown to American officers and many facilities afforded to them for acquiring useful information upon military subjects.

## GENERAL WAR DEPARTMENT SERVICE.

The year has been characterized generally by faithful and painstaking work by the different bureaus of the War Department and by the civilian force of the Department. The Quartermaster's, Subsistence, and Pay departments have dealt ably and successfully with the difficulties presented by rapidly changing conditions and constant movement of troops. The transportation of the Army has been accomplished with promptness and comfort, and the clothing and food supplied have been of the best quality.

I wish especially to make acknowledgment of the devoted and able services of the Assistant Secretary of War, Col. William Cary Sanger, and of the Chief Clerk of the Department, Mr. John C. Scofield.

## EXPENDITURES, APPROPRIATIONS, AND ESTIMATES.

The expenditures for the fiscal year ended June 30, 1902, the estimates of appropriations for the fiscal year ending June 30, 1903, the appropriations for the present fiscal year, and the estimates of appropriations required for the fiscal year ending June 30, 1904, are as follows:

General object.	Expenditures for the fiscal year ended June 30, 1902.	Estimates for the fiscal year ending June 30, 1903.	Appropriations for the fiscal year ending June 30, 1903.	Estimates for the fiscal year ending June 30, 1904.
<b>CIVIL ESTABLISHMENT.</b>				
Salaries, regular force .....	\$1,300,949.57	\$1,638,266.00	\$1,310,196.00	\$1,859,126.00
Salaries, temporary force .....	559,138.08	237,307.26	596,400.00	.....
Stationery, War Department .....	24,468.13	32,000.00	30,000.00	25,000.00
Contingent expenses, War Department .....	43,304.19	57,000.00	55,000.00	50,000.00
Rent, War Department .....	14,550.00	15,700.00	15,300.00	15,600.00
Postage, War Department .....	1,000.00	.....	.....	500.00
Salaries and contingent expenses under Superintendent Public Buildings and Grounds .....	66,208.56	67,220.00	67,320.00	70,670.00
Total civil establishment .....	2,009,608.53	2,047,493.26	2,074,216.00	2,020,896.00
<b>MILITARY ESTABLISHMENT.</b>				
All contingent expenses .....	26,209.17	92,640.00	92,140.00	45,500.00
Pay, etc., of the Army .....	36,137,867.90	33,725,225.78	32,700,796.41	29,672,364.87
Subsistence of the Army .....	6,421,391.73	11,934,916.25	11,000,000.00	7,338,965.80
Signal service of the Army .....	245,379.06	399,200.00	399,200.00	549,000.00
Military telegraph and cable lines, Alaska .....	106,492.80	.....	.....	.....
United States service schools .....	14,997.08	25,000.00	25,000.00	25,000.00
School of Submarine Defense, Fort Totten, N. Y. ....	.....	.....	16,500.00	18,000.00
Army War College .....	.....	.....	.....	15,000.00
Engineer School, Washington, D. C. ....	.....	45,000.00	45,000.00	25,000.00

General object.	Expenditures for the fiscal year ended June 30, 1902.	Estimates for the fiscal year ending June 30, 1903.	Appropriations for the fiscal year ending June 30, 1903.	Estimates for the fiscal year ending June 30, 1904.
<b>MILITARY ESTABLISHMENT—continued.</b>				
Regular supplies, Quartermaster's Department .....	\$5,490,988.14	\$6,000,000.00	\$5,500,000.00	\$5,500,000.00
Incidental expenses, Quartermaster's Department.....	1,794,548.70	2,300,000.00	2,300,000.00	2,300,000.00
Barracks and quarters.....	3,006,524.04	3,000,000.00	3,350,000.00	4,750,000.00
Barracks and quarters, Philippine Islands.....			1,500,000.00	500,000.00
Army transportation .....	16,742,809.27	30,000,000.00	25,000,000.00	16,000,000.00
Cavalry and artillery horses.....	390,563.60	750,000.00	600,000.00	450,000.00
Clothing, etc.....	3,192,176.84	5,000,000.00	4,000,000.00	4,750,000.00
Construction and repair of hospitals.....	181,542.13	150,000.00	150,000.00	435,000.00
Quarters for hospital stewards.....	9,775.94	15,000.00	15,000.00	15,000.00
Shooting galleries and ranges .....	19,377.46	15,000.00	15,000.00	35,000.00
Military post exchanges.....			500,000.00	
Army general hospitals.....		200,000.00	200,000.00	
Medical and Hospital Department.....	505,968.20	1,000,000.00		
Army Medical Museum and Library ..	18,884.41	15,000.00	15,000.00	15,000.00
Engineer depot .....		13,000.00	13,000.00	16,500.00
Engineer depot, Willets Point, N. Y ..	12,985.59			
Buildings, Engineer School, Washington, D. C .....				360,000.00
Engineer equipment of troops .....	16,440.65	25,000.00	25,000.00	25,000.00
Civilian assistants to engineer officers ..	10,449.57	25,000.00	25,000.00	25,000.00
Ordnance service .....	291,390.78	300,000.00	300,000.00	300,000.00
Ordnance, ordnance stores and supplies .....	2,354,610.80	2,125,000.00	2,225,000.00	2,480,691.00
Manufacture of arms .....	849,463.53	1,100,000.00	1,700,000.00	1,700,000.00
Ammunition for morning and evening gun .....	24,711.74	25,000.00	25,000.00	25,000.00
Artillery targets .....	9,498.84	10,000.00	10,000.00	40,000.00
Emergency fund, War Department .....	42,362.20	1,000,000.00		
Military Academy .....	524,816.64	559,454.42	536,998.42	575,503.62
<b>Total military establishment .....</b>	<b>78,442,226.81</b>	<b>99,849,436.45</b>	<b>92,283,634.83</b>	<b>77,986,515.29</b>
<b>PUBLIC WORKS.</b>				
Arsenals, etc.....	750,226.93	622,250.00	345,700.00	884,436.00
Gun and mortar batteries .....	1,974,307.03	4,150,000.00	2,325,000.00	4,325,000.00
Torpedoes for harbor defense.....	27,133.20	125,000.00	50,000.00	430,334.00
Sites for fortifications and seacoast defenses .....	128,947.58	2,000,000.00	200,000.00	2,000,000.00
Preservation and repair, and plans for fortifications .....	95,269.80	305,000.00	305,000.00	305,000.00
Sea walls and embankments .....	65,400.00	150,000.00	100,000.00	160,000.00
Armament of fortifications .....	3,732,403.71	8,000,582.60	3,413,255.00	6,827,010.00
Board of Ordnance and Fortification ..	129,689.29	200,000.00	100,000.00	200,000.00
Other fortifications appropriations .....	579,731.71	1,468,726.00	789,200.00	757,076.00
Buildings and grounds in Washington, etc .....	377,804.78	163,309.30	770,791.00	154,650.00
Erection of monuments, etc .....	6,016.35		180,500.00	
Buildings and grounds, Military Academy.....	125,844.45	339,358.00	2,090,326.00	121,430.20
Military posts.....	1,364,005.12	3,262,480.00	2,832,730.00	5,014,737.50
National military parks .....	288,648.42	515,000.00	515,000.00	425,600.00

General object.	Expenditures for the fiscal year ended June 30, 1902.	Estimates for the fiscal year ending June 30, 1903.	Appropriations for the fiscal year ending June 30, 1903.	Estimates for the fiscal year ending June 30, 1904.
<b>PUBLIC WORKS—continued.</b>				
River and harbor improvements under the continuing-contract system.....		\$5,489,377.50	\$12,306,360.00	\$16,570,339.33
River and harbor improvements under the Mississippi River Commission .....	\$13,802,860.15	2,695,000.00	2,200,000.00	2,000,000.00
River and harbor improvements under the Missouri River Commission.....		315,200.00		
Improving rivers and harbors under the Chief of Engineers.....		20,113,100.00	18,058,839.94	
Total public works.....	23,448,288.52	49,914,383.40	46,582,701.94	40,176,613.03
<b>MISCELLANEOUS.</b>				
National cemeteries, etc.....	229,419.08	313,814.05	298,814.00	265,380.00
Surveys, maps, etc.....	110,870.38	205,100.00	155,100.00	180,100.00
Artificial limbs and appliances.....	121,225.69	516,000.00	516,000.00	154,000.00
California Débris Commission.....	10,535.89	15,000.00	15,000.00	15,000.00
Bringing home the remains of officers, soldiers, and civil employees who die abroad, and soldiers who die on transports.....	109,817.51	90,000.00	90,000.00	45,000.00
Prevention of deposits, harbor of New York.....	72,782.01	70,260.00	70,260.00	120,260.00
National Home for Disabled Volunteer Soldiers.....	3,236,434.40	3,434,294.00	3,894,669.00	4,089,456.00
Aid to State and Territorial homes....	1,004,724.80	950,000.00	950,000.00	950,000.00
Miscellaneous items.....	2,500.00	4,055.10	7,000.00	37,218.10
Total miscellaneous.....	4,898,309.76	5,598,523.15	5,996,843.00	5,806,411.10
Grand total.....	108,798,433.62	157,409,836.26	146,937,395.77	125,989,435.42

## RECAPITULATION.

General object.	Expenditures for the fiscal year ended June 30, 1902.	Estimates for the fiscal year ending June 30, 1903.	Appropriations for the fiscal year ending June 30, 1903.	Estimates for the fiscal year ending June 30, 1904.
Civil establishment.....	\$2,009,608.58	\$2,047,493.26	\$2,074,216.00	\$2,020,896.00
Military establishment (support of the Army and Military Academy).....	78,442,226.81	99,849,436.45	92,283,634.83	77,986,515.29
Public works (including fortifications and river and harbor improvements).....	23,448,288.52	49,914,383.40	46,582,701.94	40,176,613.03
Miscellaneous.....	4,898,309.76	5,598,523.15	5,996,843.00	5,806,411.10
Grand total.....	108,798,433.62	157,409,836.26	146,937,395.77	125,989,435.42

General object.	Net increase of estimates for 1904 as compared with estimates for 1903.	Net decrease of estimates for 1904 as compared with estimates for 1903.	Net decrease of estimates for 1904 as compared with appropriations for 1903.
Civil establishment.....		\$26,597.26	\$53,820.00
Military establishment (support of the Army and Military Academy).....		21,862,921.16	14,297,119.54
Public works (including fortifications and river and harbor improvements).....		9,738,770.37	6,407,088.91
Miscellaneous.....	\$207,887.95		190,481.90
Grand total.....	207,887.95	31,628,288.79	20,947,960.35
Less increase.....		207,887.95	
Net decrease of estimates for 1904 as compared with estimates for 1903.....		31,420,400.84	

A comparative statement of the last four estimates submitted to Congress for the support of the military establishment proper, and of the appropriations and expenditures thereon, is as follows:

	Estimates.	Appropriations.	Expenditures.
Submitted in December, 1899, for the fiscal year ending June 30, 1901 .....	\$128,170,583.54	\$114,586,229.22	\$105,702,101.02
Submitted in December, 1900, for the fiscal year ending June 30, 1902 .....	113,568,319.39	116,249,552.78	78,442,226.81
Submitted in December, 1901, for the fiscal year ending June 30, 1903.....	99,849,436.45	92,283,634.83	.....
Submitted in December, 1902, for the fiscal year ending June 30, 1904.....	77,986,515.29	.....	.....

It will be observed that estimates have progressively decreased. The estimate for 1901 was, in round numbers, \$128,000,000; for 1902, \$113,000,000; for 1903, \$99,000,000; for 1904, \$77,000,000. Upon the estimate for \$128,000,000 for 1901, the appropriations were \$114,000,000 and the expenditures \$105,000,000; upon the estimate for \$113,000,000 for 1902, the appropriations were \$116,000,000 and the expenditures \$78,000,000.

The estimates presented this year for the support of the military establishment proper, involving chiefly things consumed during the year, are \$14,000,000 less than last year's appropriations and \$21,000,000 less than last year's estimates. On the other hand, we are asking Congress for considerable increases in appropriations for investment in permanent plant, such as sites for fortifications and seacoast defenses, gun and mortar batteries, armament of fortifications, arsenals, and military posts.

Expenditures from indefinite and permanent annual appropriations and appropriations for war claims and relief acts are not included in the above statement, but are shown in Appendix N to this report, which is a complete and detailed statement of all appropriations under the direction of the War Department for the fiscal year ended June 30, 1902, showing the balances from appropriations of the preceding fiscal year, the amounts appropriated under each title of appropriation, the amounts drawn from the Treasury upon requisition, and the unexpended balances June 30, 1902.

There were no expenditures from the appropriation for national defense (War) during the fiscal year ended June 30, 1902, but repay-

ments to this fund were made from several bureaus by covering into the Treasury the following amounts:

Ordnance Department.....	\$346,805.61
Quartermaster's Department.....	464.76
Paymaster's Department.....	473.01
Total.....	347,743.38

and the present condition of this appropriation is shown in the following tabulated statement:

*Condition of the special emergency appropriation for national defense (war) under the War Department.*

Allotments.	Amounts allotted to June 30, 1899.	Balances June 30, 1902.
Office of Secretary of War.....	\$225,000.00	\$931.08
Ordnance Department.....	9,081,496.86	1,160,406.36
Engineer Department.....	5,585,000.00	12,393.07
Quartermaster's Department.....	1,989,230.82	2,029.34
Medical Department.....	1,520,000.00	46,028.31
Pay Department.....	255,000.00	2,399.26
Signal Service.....	238,900.00	.....
Light-House Board.....	75,000.00	.....
Total.....	18,969,627.68	1,224,187.37

As stated in the last annual report, it had been held by the Comptroller of the Treasury that the appropriation for national defense lapsed on June 30, 1901, by reason of the limitation of the acts of March 9, 1898 (30 Stats., 274), and June 5, 1899 (30 Stats., 781), and that consequently the balances remaining to the credit of the several bureaus of the War Department were no longer available for expenditure.

Subsequent to this decision of the Comptroller, a provision was inserted in the urgent deficiency act approved February 14, 1902, with reference to the naval establishment, reappropriating the unexpended balance of the national defense appropriation, and making it "available for expenditure in fulfillment of contracts heretofore made and properly chargeable to said appropriation." Under date of April 25, 1902, the Comptroller decided that balances of this appropriation remaining to the credit of the several bureaus of the War Department are available for expenditure in fulfillment of contracts made by the War Department before June 30, 1901, and properly chargeable to said appropriation.

## CIVIL GOVERNMENT IN THE PHILIPPINES.

The Philippine government act of July 1, 1902, adopts and continues with enlarged powers the system of government built up under the President's instructions of April 7, 1900. The growth and character of that government were described in my last annual report. I transmit herewith all the statutes passed by the Philippine Commission from and including act No. 264, passed October 14, 1901, to and including act No. 424, passed July 1, 1902. These, together with the acts previously transmitted to Congress, constitute the entire body of legislation by the Philippine Commission prior to the passage of the Philippine government act by Congress.

The enacting clause of all these laws is "*By authority of the President of the United States, be it enacted by the United States Philippine Commission.*" Their authority as law rests: First, upon the power vested in the Commission by the President in the exercise of his war powers under the Constitution, in the instructions of April 7, 1900. Second, upon the sanction given to those instructions in that part of the act of March 2, 1901, commonly known as the "Spooner amendment," which provided:

All military, civil and judicial powers necessary to govern the Philippine Islands, acquired from Spain by the treaties concluded at Paris on the tenth day of December, 1898, and at Washington on the seventh day of November, 1900, shall, until otherwise provided by Congress, be vested in such person and persons and shall be exercised in such manner as the President of the United States shall direct for the establishment of civil government and for maintaining and protecting the inhabitants of said islands in the free enjoyment of their liberty, property and religion.

And Third, upon the provision of the Philippine government act of July 1, 1902.

That the action of the President of the United States in creating the Philippine Commission and authorizing said Commission to exercise the powers of government to the extent and in the manner and form and subject to the regulation and control set forth in the instructions of the President to the Philippine Commission, dated April 7, 1900, \* \* \* is hereby approved, ratified, and confirmed.

The statutes passed by the Philippine Commission after the 1st of July, 1902, will rest upon the authority conferred beforehand upon the Commission by Congress in that act, and the enacting clause will be: "*By authority of the United States, be it enacted by the Philippine Commission.*"



A report by the Philippine Commission has been mailed at Manila and is in transit to Washington. Upon its arrival it will be transmitted to Congress and with it will be sent copies of all acts passed by the Commission since the 1st of July, 1902.

Sections 63, 64 and 65 of the act of July 1, 1902, authorize the Commission to acquire title to lands of religious orders held in such large tracts as to injuriously affect the peace and welfare of the people of the islands, to issue bonds in payment for such land, to sell the land, with a preference to actual settlers and occupants, and to apply the proceeds to paying the principal and interest of the bonds. After the bill containing these provisions had been reported favorably by the committees of both Houses, but before the passage of the bill, Governor Taft being about to return from Washington to his post at Manila via the Suez Canal, was directed to stop at Rome for the purpose stated in the following extract from his instructions:

In view, therefore, of the critical situation of this subject in the Philippines, and of the apparent impossibility of disposing of the matter there by negotiation with the friars themselves, the President does not feel at liberty to lose the opportunity for effective action afforded by your presence in the West. He wishes you to take the subject up tentatively with the ecclesiastical superiors who must ultimately determine the friars' course of conduct, and endeavor to reach at least a basis of negotiation along lines which will be satisfactory to them and to the Philippine government, accompanied by a full understanding on both sides of the facts and of the views and purposes of the parties to the negotiation, so that when Congress shall have acted the business may proceed to a conclusion without delay.

These instructions were complied with and resulted in a very full and satisfactory understanding as to the methods to be adopted for disposing of the various questions arising out of the separation of church and state in the Philippine Islands required by the change of sovereignty. The papers establishing this basis of an understanding are annexed hereto, marked "Appendix O." The negotiations are now proceeding at Manila between Governor Taft and Monsignor Guidi, the Papal delegate to the Philippines, in accordance with the understanding reached at Rome. I have no doubt that, although many of the questions involved are delicate and difficult, just conclusions will be reached, satisfactory to both sides.

The trade of the islands has been greatly hampered during the past year by the ravages of rinderpest, causing a mortality in some provinces of over 90 per cent among the carabao, and a consequent short-

age of food crops. Business in many sections has been seriously interrupted by an epidemic of cholera, yet the imports for the fiscal year 1902 were greater than in any previous year in the history of the archipelago, and exports were exceeded in but two previous years, 1870 and 1889. The total merchandise, exclusive of gold and silver and Government supplies, imported during the fiscal year 1902 was \$32,141,842, as against \$30,279,406 for the fiscal year 1901 and \$20,601,436 for the fiscal year 1900, and the total value of merchandise exported during the fiscal year 1902 was \$23,927,679, as against \$23,214,948 for the fiscal year 1901 and \$19,751,068 for the fiscal year 1900, an increase of 6 per cent in the value of imports for the fiscal year 1902 over the fiscal year 1901 and of 56 per cent over the fiscal year 1900, and an increase in the value of exports for the fiscal year 1902 over the fiscal year 1901 of 3 per cent and over the fiscal year 1900 of 21 per cent.

The imports for the fiscal year 1902 came from the following countries:

United States .....	\$4,035,243	China .....	\$4,300,959
United Kingdom .....	5,523,161	Hongkong .....	1,820,109
Germany .....	2,356,548	British East Indies .....	2,995,192
France .....	1,524,523	French East Indies .....	3,244,329
Spain.....	2,388,542	Other countries .....	3,953,236

The exports for the same period went to the following countries:

United States .....	\$7,691,743	Hongkong .....	\$3,183,482
United Kingdom .....	8,282,979	Japan .....	925,767
Germany .....	75,626	British East Indies .....	670,819
France .....	955,828	Australasia.....	437,840
Spain.....	868,528	Other countries .....	372,121
China .....	462,946		

The imports from the United States amounted to \$4,035,243 in 1902 as against \$2,855,685 in 1901 and \$1,657,701 in 1900, or an increase for the past year over 1900 of 143 per cent. The value of merchandise exported to this country in 1902 was \$7,691,743 as against \$2,572,021 in 1901 and \$3,522,160 in 1900, showing an increase in favor of the latest period over 1900 of 118 per cent.

The United States shows greater gains of imports for the fiscal year 1902 than any other country, except the French East Indies, which shows a great increase in the quantity of rice exported to the islands

to make up for deficient crops. In exports the United States gained more than any other country.

The showing made by the United States on the basis of direct shipments to and from the islands discloses a marked increase during the past few years; yet it does not take into account purchases made in this country entered at the Philippine customs-houses free of duty for use of the United States military departments or the insular government or its subordinate branches. In these figures also this country is deprived of the proper credit for its imports into the islands by shipments passing through Hongkong and eventually reported as originating at that point. Although this applies also to European countries to some extent, it has been found that only a small part of their export credits is affected, for the reason that nearly all their shipments come direct via Singapore; and the transshipment at that port and at Hongkong and Saigon are rarely attended by the issue of new shipping documents, under which the port of transshipment can be taken as the port of origin.

As to the Philippine export trade to the United States, in which this country has trebled its figures during the last two years, the results stated represent more nearly the proper credit, but there are numerous instances of shipments of hemp in large quantities, intended for the United States, to Europe and Hongkong under documents in which these countries are given as the ports of final destination. This will appear from the fact that approximately \$7,500,000 worth of hemp was exported from the Philippines to the United Kingdom during the year 1902, while during the same period the importations of this fiber into the United States from the United Kingdom amounted to nearly \$4,250,000, presumably included in indirect shipments, credit for which should be given to this country. If credit is given for these importations the United States is placed far in advance as the leading market for Philippine products at the present time.

The second section of the act of March 8, 1902, approving the Philippine tariff law, provides that—

All articles, the growth and product of the Philippine Islands, admitted into the ports of the United States free of duty under the provisions of this act, and coming directly from said islands to the United States for use and consumption therein, shall be hereafter exempt from any export duties imposed in the Philippine Islands.

Under this provision it has been ruled that, to be entitled to the benefit of this exemption from export duty in the Philippines, articles must come from the Philippines to the United States in the same bottom, and that articles exported from Manila to Hongkong or London and there reshipped to the United States, even though under a through bill of lading, are not entitled to the statutory benefit of exemption from export tax. Under this provision it is probable that the next hemp crop, so far as it is required for consumption in the United States, will come direct to our ports instead of going by Hongkong or London. In that case the business will be open for American commercial lines, if they see fit to engage in it.

The total importations received from date of American occupation to and including June 30, 1902, amounted to \$96,135,694, or, reckoning complete yearly periods covered by the last three fiscal years, an average annual import trade of more than twenty-seven and a half million is shown to have been maintained; and the total duty collected during these years approximated twenty-two and a half millions.

The value of merchandise exported during the same period was \$79,260,607, the duty collected amounting to nearly \$3,000,000.

Annexed hereto will be found a tabulated statement in comparative form, showing the Philippine commerce with the United States and leading countries during three calendar years of American occupation ended December 31, 1901, marked "Appendix P."

Immigrants to the number of 30,094 arrived in the Philippine Islands during the fiscal year 1902 as against 17,108 in the fiscal year 1901. Of this number 12,751 (including 10,101 Chinese) had been in the islands before. Among the 17,343 who came for the first time there were 15,312, or 88 per cent, Americans, 368 Chinese, 451 Japanese, 222 English, 358 Spaniards, 129 East Indians, and 503 of other nationalities. There were 2,497 females and 928 children under 14 years of age. With the exception of 8,349 Chinese but 3 per cent of the immigrants were illiterates. Among the Americans there were 176 merchant dealers and grocers, 790 teachers, 122 clerks and accountants. The greater number of Americans are, however, not described by occupation. More than three-fourths of the Chinese were laborers, and more than half the remainder merchants.

Annexed hereto, marked "Appendix Q," is a statement of revenues and expenditures in the Philippine Archipelago from the date of Amer-

ican occupation to the end of the fiscal year 1902, which coincides with the end of the government under the authority of the President and the beginning of government under the direct authority of Congress. The total revenues have amounted to \$33,589,819.05 and the total expenditures to \$23,253,573.13, American money.

The relative income and expenditure by fiscal years has been as follows:

	Income.	Expenditure.
1899.....	\$3,508,682.83	\$2,376,008.62
1900.....	6,763,527.73	4,758,677.76
1901.....	10,686,188.97	6,073,766.44
1902.....	12,631,419.52	10,045,120.32

The surplus of income over expenditure has in a great measure been allotted to the payment of various contracts for public improvements and public benefit, so that the real surplus of free cash in the Treasury is comparatively small.

I shall defer comment and recommendation generally upon Philippine affairs until I transmit the report of the Commission, now on the way to this country. I realize that it is hardly to be expected that Congress shall devote much time to legislation for the Philippines during the approaching short session, especially in view of the great amount of time which they devoted to the subject in the last session and the scope and value of the laws which they then considered and passed.

I do not wish to delay, however, in asking the attention of Congress to two subjects upon which, I think, if the conditions and needs of the islands could be fully understood, there would be but little controversy, and upon which very simple enactments would be of immense value to the people of the islands, whose welfare the Government of the United States is bound to promote. I earnestly urge, first, that the duties levied in the United States upon products of the Philippine Archipelago imported therefrom be reduced to 25 per cent of the Dingley tariff rates; second, that the government of the island be permitted to establish the gold standard for its currency, and to take such measures as it finds to be practicable and prudent to keep the silver coinage which it is authorized to issue at parity with gold, without in any way committing the United States to responsibility therefor.

I shall not now undertake, nor is it the proper office of such a report as this, to argue the economic questions which may be raised by the consideration of these recommendations. The views upon which they are based have been presented in my former reports and in the reports of the Philippine Commission. The reason for presenting them now is that the ills which have recently befallen the people of the islands call urgently for active and immediate measures of relief. The people of a country just emerging from nearly six years of devastating warfare, during which productive industry was interrupted, vast amounts of property were destroyed, the bonds of social order were broken, habits of peaceful industry were lost, and at the close of which a great residuum of disorderly men were left leading a life of brigandage and robbery, had a sufficiently difficult task before them to restore order and prosperity. In addition to this, however, the people of the Philippine Islands have within the past year been visited by great misfortunes.

The rinderpest has destroyed about 90 per cent of all their carabaos, leaving them without draft animals to till their land and aid in the ordinary work of farm and village life. Carabaos have increased in price from \$20 to \$200 Mexican. The Eastern disease known as "surra" has killed and is killing the native and American horses, further crippling transportation. The rice crop has been reduced to 25 per cent of the ordinary crop. Last year in the Visayan Islands and this year in Luzon a plague of locusts has come upon the land, destroying much of the remaining 25 per cent of the rice crop. A drought in China and the fall in the price of silver have raised the price of rice from \$4 to \$7 a picul. The Commission has been obliged to go out of the islands and use insular funds to buy over 40,000,000 pounds of rice to save the people from perishing by famine. Cholera has raged and is raging throughout the islands. The ignorance of the people and their unwillingness to submit to sanitary regulations have made it almost impossible to check the ravages of the disease, which, it is estimated, will claim not less than 100,000 victims. The decline in the price of silver has carried Mexican dollars down from a ratio of two to one in gold to a ratio of over two and one-half to one, and this has borne heavily on the commercial interests and on the wage earners.

The insular government has in ten months lost over \$1,000,000 gold by the decline in silver because it was operating on a silver basis, and this has changed the surplus of revenues into a deficit at the very time when the other causes mentioned have caused an extraordinary demand for the use of the revenues for the relief of the people. Agriculture is prostrated. Commerce is hampered and discouraged. All the political parties in the Philippines urgently demand a change of the present currency standard. Some relief would be afforded by opening a profitable market in the United States to the products of the islands. Still greater relief would be afforded by delivering the business of the islands from the disastrous effects of the decline in the price of silver and the fluctuations in exchange, and putting it upon the substantial basis of the gold standard currency which exists in the United States, where we wish them to do their business, which exists on the continent of Europe and in India and Japan, and the adoption of which is now under consideration in the Straits Settlements.

Realizing the difficulty and importance of many of the questions with which we were about to be confronted in our undertaking to govern or supervise the government of the Philippines, and at about the time of sending Mr. Charles A. Conant to study the banking and currency questions in the Philippines, the War Department sent Prof. Jeremiah W. Jenks, of Cornell University, as special commissioner to study and report on the systems of currency, labor, and internal taxation of Burma, the Straits Settlements, the Federated Malay States, and Java. His very able and painstaking report upon all these subjects was received in September, 1902, and is transmitted herewith. Without any conference between himself and Mr. Conant, starting with views in favor of the silver standard and proceeding upon the basis of an entirely independent investigation, viewing broadly the entire conditions in the Orient, Professor Jenks has come to substantially the same conclusion, that the true solution of the monetary difficulties in the Philippines is to be found in the adoption of the gold standard. I recommend this report to careful consideration, and urge that a measure based upon the views which he thus reenforces, should be adopted in performance of the peremptory duty resting upon the Government of the United States to act and not remain indifferent in regard to the evils which now press so heavily upon the people of the Philippine Islands.

I annex hereto, marked "Appendix R," a statement showing the commercial relations of Cuba with the United States and other countries during the entire period of American occupation.

I submit herewith the annual reports of the heads of the bureaus of the War Department and of the Lieutenant-General Commanding the Army, to which are appended the reports to him by division and department commanders, including separate reports of military operations in the Philippine Islands.

The final report of Brig. Gen. Leonard Wood as military governor of Cuba, when received, will be submitted as a supplemental report.

The reports of the Board of Ordnance and Fortification; the commissioners of national military parks; the Board of Visitors to the United States Military Academy at West Point; the Superintendent of the United States Military Academy; the Board of Commissioners of the Soldiers' Home, District of Columbia; of inspection of the Soldiers' Home, District of Columbia, and inspection of the National Home for Disabled Volunteer Soldiers, are also submitted.

ELIHU ROOT,  
*Secretary of War.*





## APPENDIX A.

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### BEING THE DOCUMENTARY HISTORY OF THE INAUGURATION OF THE CUBAN GOVERNMENT.

MARCH 24, 1902.

SIR: You are authorized to provide for the inauguration, on the 20th of May next, of the government elected by the people of Cuba; and upon the establishment of said government to leave the government and control of the island of Cuba to its people, pursuant to the provisions of the act of Congress entitled "An act making appropriation for the Army for the fiscal year ending June 30, 1902," approved March 2, 1901.

Upon the transfer of government and control to the President and Congress so elected, you will advise them that such transfer is upon the express understanding and condition that the new government does thereupon, and by the acceptance thereof, pursuant to the provisions of the appendix to the constitution of Cuba, adopted by the constitutional convention on the 12th of June, 1901, assume and undertake all and several the obligations assumed by the United States with respect to Cuba by the treaty between the United States of America and Her Majesty the Queen Regent of Spain, signed at Paris on the 10th day of December, 1898. It is the purpose of the United States Government, forthwith upon the inauguration of the new government of Cuba, to terminate the occupancy of the island by the United States and to withdraw from that island the military forces now in occupancy thereof; but for the preservation and care of the coast defenses of the island, and to avoid leaving the island entirely defenseless against external attack, you may leave in the coast fortifications such small number of artillerymen as may be necessary, for such reasonable time, as may be required to enable the new government to organize and substitute therefor an adequate military force of its own; by which time it is anticipated that the naval stations referred to in the statute and in the appendix to the constitution above cited, will have been agreed upon, and the said artillerymen may be transferred thereto.

You will convene the Congress elected by the people of Cuba in joint session at such reasonable time before the 20th of May as shall

be necessary therefor, for the purpose of performing the duties of counting and rectifying the electoral vote for President and Vice-President under the fifty-eighth article of the Cuban constitution. At the same time you will publish and certify to the people of Cuba the instrument adopted as the constitution of Cuba by the constitutional convention on the 21st day of February, 1901, together with the appendix added thereto, and forming a part thereof, adopted by the said convention on the 12th day of June, 1901. It is the understanding of the Government of the United States that the government of the island will pass to the new President and Congress of Cuba as a going concern; all the laws promulgated by the government of occupation continuing in force and effect, and all the judicial and subordinate executive and administrative officers continuing in the lawful discharge of their present functions until changed by the constitutional officers of the new government. At the same moment the responsibility of the United States for the collection and expenditure of revenues, and for the proper performance of duty by the officers and employees of the insular government, will end, and the responsibility of the new government of Cuba therefor will commence.

In order to avoid any embarrassment to the new President which might arise from his assuming executive responsibility with subordinates whom he does not know, or in whom he has not confidence, and to avoid any occasion for sweeping changes in the civil-service personnel immediately after the inauguration of the new government, approval is given to the course which you have already proposed of consulting the President-elect, and substituting, before the 20th of May, wherever he shall so desire, for the persons now holding official positions, such persons as he may designate. This method will make it necessary that the new President and yourself should appoint representatives to count and certify the cash and cash balances, and the securities for deposits, transferred to the new government. The consent of the owner of the securities for deposits to the transfer thereof you will of course obtain.

The vouchers and accounts in the office of the auditor and elsewhere relating to the receipt and disbursement of moneys during the government of occupation must necessarily remain within the control, and available for the use, of this department. Access to these papers will, however, undoubtedly be important to the officers of the new government in the conduct of their business subsequent to the 20th of May. You will accordingly appoint an agent to take possession of these papers, and retain them at such place in the island of Cuba as may be agreed upon with the new government, until they can be removed to the United States without detriment to the current business of the new government.

I desire that you communicate the contents of this letter to Mr. Palma, the President-elect, and ascertain whether the course above described accords with his views and wishes.

Very respectfully,

ELIHU ROOT, *Secretary of War.*

Brig. Gen. LEONARD WOOD,  
*Military Governor of Cuba, Havana, Cuba.*

[First indorsement.]

The proposals included in this letter meet my personal approval.  
Washington, 25th, 1902.

T. ESTRADA PALMA.

[Second indorsement.]

WASHINGTON, D. C., *March 25, 1902.*

Respectfully returned to the honorable the Secretary of War.

I have the honor to inform you that I have complied with the instructions in the last paragraph of the within letter, which I have the honor to return to you with the indorsement of Señor T. Estrada Palma, president-elect of Cuba. Señor Palma has also placed his signature on each page of the letter.

LEONARD WOOD,  
*Brigadier-General, U. S. A., Military Governor of Cuba.*

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WAR DEPARTMENT,  
*Washington, March 27, 1902.*

SIR: In the instructions already communicated to you as to the withdrawal of the army from Cuba there is a provision that you may leave a small force of artillery troops for certain purposes therein specified. The retention of these troops will require that special arrangements be made for the maintenance of discipline among the forces so remaining with a view to limit their action to the ends proposed. From the evacuation provided for in the instructions already communicated exception will, therefore, be made of the modern fortifications and of the barracks, quarters, buildings and grounds appurtenant thereto, constituting a part of the seacoast defenses of the ports of Habana, Cienfuegos, and Santiago, which will continue to be garrisoned by the troops of the United States until a date to be hereafter agreed upon by the respective Governments of the United States and of Cuba.

The posts to be thus provisionally garrisoned by the military forces of the United States will be designated by you, and the boundaries of the tracts constituting the reservations pertaining to the same will be described, by metes and bounds, and will also be shown on maps and plans to be furnished by you to the Government of Cuba; and the

lines of demarcation so described and shown will mark and define the limits of the jurisdiction of the Government of Cuba and of the military jurisdiction of the United States Government over the forces in its military service. The troops thus remaining as garrisons of the artillery defenses of Havana, Cienfuegos, and Santiago will enjoy all the privileges of exterritoriality to which vessels of war visiting the territorial waters of a friendly power are entitled under the generally accepted rules of international law.

The troops remaining in garrison in the island of Cuba will, on the date of the evacuation, cease to constitute an occupying force and will thereafter occupy a status of exterritoriality to be presently explained. The duties of the senior officer will be restricted to the command of the military forces under his orders, and he will under no circumstances exercise, or attempt to exercise, any authority whatever in the governmental affairs of Cuba; and as to himself and the officers and men under his command will carefully abstain from all interference in local or political affairs. You will ask from the proper governmental authority an assurance that it will refrain from the exercise of jurisdiction over the officers and men composing the garrisons of the defenses hereinbefore described, their armament and equipment, and the public property of the United States which is in their custody and control.

The troops of the United States so remaining in the island of Cuba, and there enjoying the privileges of exterritoriality, are to be under the exclusive military command and control of the senior officer stationed therewith; and you will obtain the necessary assurances that the right of transit of individuals, detachments, or military organizations, to and from the United States and from one post to another in the island shall not be denied, impeded, or interfered with, and the right of the United States Government to inspect and communicate with the garrisons above named and of its subordinate military commanders to communicate with each other and with their military superiors in the United States by mail, telegraph, telephone, or by special messenger, shall be maintained and protected. You will also ask for similar assurances that the several military commands herein provided for shall have the right to procure supplies in the island of Cuba, to receive military stores, and munitions of war from the United States, and to ship stores, military supplies, and public property of all kinds, and the private property and baggage of officers and enlisted men to the United States, or from one point to another in the island of Cuba; that such importations and exports shall be exempt from customs and inspections, from insular taxation, and from municipal impositions of all kinds; and that such stores, supplies, and munitions shall during their transit from point to point in Cuba be entitled to a similar

immunity from local jurisdiction and from seizure by way of execution or otherwise.

The Government of Cuba should also be asked to pledge itself to protect individual officers and enlisted men, or detachments of troops under proper military commands, while on duty outside of the limits of the reservations hereinbefore described. The proper local authorities should similarly be instructed to protect individual officers and enlisted men, who may find themselves without the limits of their respective reservations, while engaged in private business, in making or returning official or personal visits, or while engaged in travel.

You will endeavor to impress upon the commander of the artillery forces constituting the garrisons to be retained in the island the importance of refraining from even the appearance of interference in governmental or political affairs. He will render appropriate military honors to the Cuban flag and to all officers of the Cuban Government who are entitled thereto, and will treat its representatives with whom he may come into personal or official contact with the greatest courtesy and consideration, upon all occasions.

Very respectfully,

ELIHU ROOT,

*Secretary of War.*

Brig. Gen. LEONARD WOOD,

*Military Governor of Cuba, Havana, Cuba.*

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WAR DEPARTMENT,

*Washington, May 3, 1902.*

SIR: I inclose herewith four papers marked respectively "A," "B," "C," and "D," for your official action. You will perceive that these are papers which were prepared during my recent visit to Havana, with some slight verbal changes. They have now been submitted to and approved by the President and his Cabinet. The paper marked "A" you will publish in the form of a law or order as soon as practicable after its receipt. The paper marked "B," with the blanks properly filled, you will promulgate by publication in the "Official Gazette" as soon as the Cuban Congress has examined the credentials, counted the votes, reached the decisions, and made the adjournment therein recited. At the same time such further steps as you think necessary should be taken to give the paper full publicity in all parts of Cuba before the 20th of May. The paper marked "C," with the blank properly filled, you will publish in the "Official Gazette" on the morning of the 20th of May instant. At noon on the 20th of May the newly elected President and Congress of Cuba being assembled in one place, you will publicly read to them the declaration of transfer marked "D" and at the same time deliver to the President the original thereof

signed by you. This act will be the operative act to terminate the military government. At some convenient time before the day of this ceremony the President-elect, Mr. Palma, should be informally furnished with a copy of the paper which you propose to read and deliver, in order that he may have an opportunity to consider what reply, if any, he desires to make on the moment, and also have an opportunity, if he wishes to do so, to provide a translation for the information of those members of the Cuban Congress who do not understand English. It would seem appropriate that the Cuban flag should be raised by you immediately after any reply which Mr. Palma may make, and as a part of the same transaction. This is, however, to be arranged between you and Mr. Palma.

Very respectfully,

ELIHU ROOT,  
*Secretary of War.*

Brig. Gen. LEONARD WOOD,  
*Military Governor of Cuba,*  
*Habana, Cuba.*

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A.

Whereas the seventh clause of the transitory rules contained in the constitution adopted by the constitutional convention of Cuba provides as follows:

All laws, decrees, regulations, orders, and other rulings which may be in force at the time of the promulgation of this Constitution shall continue to be observed in so far as they do not conflict with the said Constitution until such time as they may be legally revoked or amended, and

Whereas certain of the laws, decrees, regulations, orders and other rulings made and promulgated by the military governor of Cuba and now in force, are in terms specifically applicable and apparently limited to the military government and the officers thereof:

Now, therefore, to the end that the foregoing provision may be fully operative and that none of the matters and things to which said laws, decrees, regulations, orders and rulings relate shall be, or appear to be, without regulation and control after the termination of the military government and pending action thereon by the government established under the said constitution when the same shall have taken effect:

It is hereby declared and ordered that each and every of the said laws, decrees, regulations, orders and other rulings made and promulgated by and under the military government of Cuba shall be deemed to be general and continuing in its character, and to be applicable to and binding upon all officers of the Government of Cuba under whatsoever names or titles who shall succeed the officers of the military government, and to continue in force and effect under whatsoever government shall exist in Cuba until such time as it may be legally revoked or amended pursuant to the provisions of the Constitution aforesaid.

## B.

HEADQUARTERS DEPARTMENT OF CUBA,  
*Havana, May —, 1902.*

It is hereby made known to the people of Cuba:

1. That the Congress of Cuba, elected on December 31, 1901, and February 24, 1902, under the provisions of the electoral law published in orders No. 218, October 14, 1901, these headquarters, having been duly convened in Havana on the 5th day of May, 1902, pursuant to orders No. 101, April 14, 1902, these headquarters, has examined into the credentials and decided as to the validity of the election of its members and has found and decided that the following-named persons have been duly elected senators:

(Here will follow the list of senators.)

And the following-named persons have been duly elected representatives:

(Here will follow the list of representatives.)

2. That the Congress so convened, after counting and ratifying the electoral vote, has found and proclaimed to be elected President of the Republic of Cuba Tomas Estrada Palma, and to be elected Vice-President of the Republic of Cuba Luis Esteves Romero.

3. That the said Congress has adjourned to meet at Havana on the 20th day of May, 1902, at 12 o'clock noon.

4. That on the said 20th day of May, 1902, at 12 o'clock noon, the constitution adopted by the constitutional convention at Havana on the 21st day of February, 1901, together with the appendix to the said constitution adopted by said convention on the 12th day of June, 1901, will be promulgated as the constitution of the Republic of Cuba, and will go into full force and effect; and thereupon and at that time the occupation of Cuba by the United States and the military government of the island will cease and determine, and the government and control of the island will be transferred to the President and Congress so elected, to be held and exercised by them under the constitution so promulgated.

Such transfer will be upon the understanding and condition that the new government does thereby and by the acceptance thereof, pursuant to the provisions of the said appendix to the constitution, assume and undertake all and several the obligations assumed by the United States with respect to Cuba by the treaty between the United States of America and Her Majesty the Queen Regent of Spain, signed at Paris on the 10th day of December, 1898.

\_\_\_\_\_  
*Military Governor.*

## C.

HEADQUARTERS DEPARTMENT OF CUBA,  
*Havana, May 20, 1902.*

The following constitution, adopted by the constitutional convention of the people of Cuba on the 21st day of February, 1901, together with and including the appendix thereto, adopted by said convention on the 12th day of June, 1901, is hereby promulgated as the consti-



tution of the Republic of Cuba, and declared to be in full force and effect on and after this day.

(Take in the constitution, omitting date and signatures as marked in pencil in the Gazette of April 14, 1902, marked R.)

*Military Governor of Cuba.*

D.

HEADQUARTERS DEPARTMENT OF CUBA,  
*Havana, May 20, 1902.*

To the PRESIDENT AND CONGRESS OF THE REPUBLIC OF CUBA.

SIRS: Under the direction of the President of the United States, I now transfer to you as the duly elected representatives of the people of Cuba the government and control of the island; to be held and exercised by you, under the provisions of the constitution of the Republic of Cuba heretofore adopted by the constitutional convention and this day promulgated; and I hereby declare the occupation of Cuba by the United States and the military government of the island to be ended.

This transfer of government and control is upon the express condition, and the Government of the United States will understand, that by the acceptance thereof you do now, pursuant to the provisions of the said constitution, assume and undertake, all and several, the obligations assumed by the United States with respect to Cuba, by the treaty between the United States of America and Her Majesty the Queen Regent of Spain, signed at Paris on the 10th day of December, 1898.

All money obligations of the military government down to this date have been paid as far as practicable. The public civil funds derived from the revenues of Cuba transferred to you this day amounting to \$—, are transferred subject to such claims and obligations properly payable out of the revenues of the island as may remain. The sum of \$100,000 has been reserved from the transfer of funds to defray anticipated expenses of accounting, reporting, and winding up the affairs of the military government, after which any unexpended balance of said sum will be paid into the treasury of the island.

The plans already devised for the sanitation of the cities of the island and to prevent a recurrence of epidemic and infectious diseases, to which the Government of the United States understands that the provision of the constitution contained in the fifth article of the appendix applies, are as follows:

1. A plan for the paving and sewerage of the city of Havana, for which a contract has been awarded by the municipality of that city to McGivney, Rokeby & Co.

2. A plan for waterworks to supply the city of Santiago de Cuba, prepared by Capt. S. D. Roekenbach, in charge of the district of Santiago, and approved by the military governor, providing for taking water from the wells of San Juan Canyon and pumping the same to reservoirs located on the heights to the east of the city.

3. A plan for the sewerage of the city of Santiago de Cuba, a contract for which was awarded to Michael J. Dady & Co. by the military governor of Cuba, and now under construction.

4. The rules and regulations established by the President of the United States on the 17th of January, 1899, for the maintenance of quarantine against epidemic diseases at the ports of Havana, Matanzas, Cienfuegos, and Santiago de Cuba, and thereafter at the other ports of the island, as extended and amended and made applicable to future conditions by the order of the military governor, dated \_\_\_\_\_, published in the Official Gazette of Havana on the \_\_\_\_\_ day of April, 1902.

5. The sanitary rules and regulations in force in the city of Havana (and in any other city having official rules, etc.).

<sup>a</sup>It is understood by the United States that the present government of the Isle of Pines will continue as a de facto government, pending the settlement of the title to said island by treaty pursuant to the Cuban constitution and the act of Congress of the United States approved March 2, 1902.

<sup>a</sup>I am further charged by the President of the United States to deliver to you the letter which I now hand you.

\_\_\_\_\_,  
Military Governor.

ACTION IN HAVANA UNDER ABOVE INSTRUCTIONS.

*Correspondence relative to the United States artillery forces remaining in Cuba after the termination of the military government of that island and their transfer eventually to naval stations, being a letter to Hon. T. Estrada Palma, dated Havana, May 14, 1902, Mr. Palma's reply thereto, dated May 16, and letter of May 14 transmitting the orders of the military governor of Cuba to the commanding officer of artillery forces to remain in Cuba.*

HEADQUARTERS MILITARY GOVERNOR, ISLAND OF CUBA,  
Havana, May 14, 1902.

HONORABLE T. ESTRADA PALMA,  
*President-elect, Republic of Cuba, Havana, Cuba.*

SIR: As you are aware, a certain force of artillery are to be left in the fortifications at Santiago, Cienfuegos and Havana, pending such arrangement as to naval stations as are to be made between the Government of the United States and the Government of Cuba.

The posts thus to be garrisoned by the military forces of the United States will be designated and their limits defined by metes and bounds to be shown upon maps, in order that the exact limits of the military jurisdiction of the United States Government over the forces in the military service may be distinctly defined.

The troops thus remaining are to enjoy all the privileges of exterritoriality to which vessels of war visiting the territorial waters of a friendly power are entitled under the generally accepted rules of international law.

These troops will cease to constitute an occupying force and will occupy a status of exterritoriality. They will have no intervention in

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<sup>a</sup>As amended by letters May 10 and 16.

the governmental, local or political affairs of the Cuban Government, and it is desired that you grant an assurance that the Government of the Republic of Cuba will refrain from the exercise of jurisdiction over the officers and men composing the garrisons of the defenses herein described, their armament and equipment, and the public property of the United States which is in their custody and control.

It is further desired that you give the necessary assurance that the right of transit of individuals, detachments, or military organizations to and from the United States and from one post to another in the island of Cuba shall not be denied, impeded, or interfered with, and the right of the United States Government to inspect and communicate with the garrisons above named and of its subordinate military commanders to communicate with each other and with their superiors in the United States by mail, telegraph, telephone, or by special messenger, shall be maintained and protected; and that the military commands herein referred to shall have the right to procure supplies in the island of Cuba, to receive military stores, and munitions of war from the United States, and to ship stores, military supplies, and public property of all kinds and the private property of officers and enlisted men to the United States, from one point to another in the island of Cuba; that such importations and exports shall be exempt from customs inspections and duties, from insular taxation and from municipal impositions of all kinds; and that such stores, supplies, and munitions shall, during their transit from point to point in Cuba, be entitled to a similar immunity from local jurisdiction and from seizure by way of execution or otherwise. The commanding officer will be instructed to see that there is no abuse of the courtesy thus extended.

Assurance is also requested that the Government of Cuba pledge itself to protect the individual officers and enlisted men, or detachments of troops under proper commands, while outside of the limits of the reservation hereinbefore described; and that the proper local authorities be instructed to protect individual officers and enlisted men who may find themselves without the limits of their respective reservations, while engaged in private business, in making or returning official or personal visits, or while engaged in travel.

Assurance on these points is desired from you as President-elect of Cuba, with the further assurance that the Executive branch of the Cuban Government will exercise its influence to the end that that Cuban Government, when constituted, will duly confirm the assurances above requested.

The officers and troops of the United States will render appropriate honors to the Cuban flag and to all officials of the Cuban Government.

It is earnestly desired that the subject-matter of this letter receive your early consideration and approval.

Very respectfully,

LEONARD WOOD,  
*Military Governor of Cuba.*

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HAVANA, *May 16, 1902.*

General LEONARD WOOD,  
*Military Governor of Cuba.*

SIR: I beg to acknowledge your communication of the 14th instant in reference to the force of United States Artillery which are to remain

in certain fortifications of the island of Cuba, pending the arrangement as to naval stations to be made between the Government of the United States and the Government of Cuba.

I give you the assurances, as President-elect, that I will do all which depends on me to carry out the desires expressed in the said communication.

Yours, very truly,

T. ESTRADA PALMA.

HEADQUARTERS MILITARY GOVERNOR, ISLAND OF CUBA,  
*Havana, May 14, 1902.*

Colonel WILLIAM L. HASKIN,  
*Artillery Corps, U. S. Army,*  
*Commanding Artillery Defenses, Havana, Cuba.*

SIR: You have been designated to command the United States forces which are to remain in Cuba subsequent to the termination of the military government on the 20th of May, 1902.

The following relative to your duties, and all that pertains to your relation with the Cuban Government, is transmitted to you for your information and guidance. The posts to be garrisoned by the troops under your command are:

(1) *Morro Castle Barracks, Santiago, Cuba.* The military jurisdiction will be coincident with the boundaries of the military reservation as heretofore recognized by the military government, and as indicated on the within map hereunto attached, marked "A."

(2) *Roswell Barracks, at the entrance of the harbor of Cienfuegos, Cuba.* The military jurisdiction to be coincident with the present territory occupied as a military reservation, as indicated in the map hereunto attached, marked "B."

(3) *Cabana Barracks, on the eastern side of the entrance to the harbor of Havana, including Batteries Nos. 1 and 2 and Velasco Battery.*

The military jurisdiction over the barracks and batteries above mentioned will be coincident with the territory embraced in the map hereunto attached, marked "C." The jurisdiction of the military commander does not include the Morro and Cabana fortresses.

(4) *Santa Clara Battery and batteries Nos. 3, 4, and 5.*—The military jurisdiction being coincident with the maps hereunto attached, marked "D," "E," and "F."

All forts and reservations occupied by troops will, in addition to being shown on maps and plans, be described by metes and bounds, and the lines of demarcation so described and shown will mark and define the limits of the military jurisdiction of the United States Government over the forces in its military service.

The troops remaining as garrisons of the military defenses referred to at Havana, Cienfuegos, and Santiago will cease to constitute an occupying force and will enjoy all the privileges of exterritoriality to which vessels of war visiting the territorial waters of a friendly power are entitled under the generally accepted rules of international law.

The duties of the senior officer will be restricted to the command of the military forces under his orders, and he will under no circumstances exercise or attempt to exercise any authority whatever in the

governmental affairs of Cuba; and as to himself and the officers and men under his command will carefully abstain from all interference in local or political affairs.

Assurance will be requested from the Government of Cuba that it will refrain from the exercise of jurisdiction over the officers and men composing the garrisons of the defenses hereinbefore described, their armament and equipment, and the public property of the United States which is in their custody and control.

The troops of the United States so remaining in the Island of Cuba, and there enjoying the privileges of extritoriality, are to be under the exclusive military command and control of the senior officer stationed therewith, and assurance will be obtained from the Cuban Government that the right of transit of individuals, detachments, or military organizations, to and from the United States and from one post to another in the island of Cuba, shall not be denied, impeded, or interfered with, and the right of the United States Government to inspect and communicate with the garrisons above named, and of its subordinate military commanders to communicate with each other and with their military superiors in the United States by mail, telegraph, telephone, or by special messenger, shall be maintained and protected.

Assurance will be requested from the Cuban Government that it will permit the several military commands to receive military stores, and munitions of war from the United States, and to ship stores, military supplies, and public property of all kinds, and the private property and baggage of officers and enlisted men to the United States, or from one point to another in the island of Cuba; that such importations and exports shall be exempt from customs duties and inspections, from insular taxation and from municipal impositions of all kinds; and that such stores, supplies and munitions shall, during their transit from point to point in Cuba, be entitled to immunity from local jurisdiction and from seizure by way of execution or otherwise, and you are instructed to exercise all necessary precautions to see that the courtesy hereby extended is not abused.

The Government of Cuba will also be asked to protect individual officers and enlisted men, or detachments of troops under proper military commands, while on duty outside of the limits of the reservations hereinbefore referred to. The proper local authorities will also be requested to protect individual officers and enlisted men, who may find themselves without the limits of their respective reservations, while engaged in private business, in making or returning official or personal visits, or while engaged in travel.

You must bear always in mind that even the appearance of interference in governmental or political affairs must be avoided by the officers and forces of the United States; and that appropriate military honors will be rendered the Cuban flag and to all officers of the Cuban Government who are entitled thereto, and its representatives with whom you may come into personal or official contact will be treated with the greatest courtesy and consideration upon all occasions.

Very respectfully,

LEONARD WOOD,  
*Military Governor of Cuba.*

No. 148.

HEADQUARTERS DEPARTMENT OF CUBA,  
*Havana, May 13, 1902.*

Whereas the seventh clause of the transitory rules contained in the constitution adopted by the constitutional convention of Cuba provides as follows:

"All laws, decrees, regulations, orders and other rulings which may be in force at the time of the promulgation of this constitution shall continue to be observed, in so far as they do not conflict with the said constitution, until such time as they may be legally revoked or amended."

And whereas certain of the laws, decrees, regulations, orders and other rulings made and promulgated by the military governor of Cuba and now in force are in terms specifically applicable and apparently limited to the military government and the officers thereof;

Now, therefore, to the end that the foregoing provision may be fully operative, and that none of the matters and things to which said laws, decrees, regulations, orders and rulings relate shall be or appear to be without regulation and control after the termination of the military government and pending action thereon by the government established under the said constitution when the same shall have taken effect,

It is hereby declared and ordered that each and every of the said laws, decrees, regulations, orders and other rulings made and promulgated by and under the military government of Cuba shall be deemed to be general and continuing in its character, and to be applicable to and binding upon all officers of the Government of Cuba under whatsoever names or titles who shall succeed the officers of the military government, and to continue in force and effect under whatsoever government shall exist in Cuba until such time as it may be legally revoked or amended pursuant to the provisions of the constitution aforesaid.

[SEAL.]

LEONARD WOOD,  
*Military Governor.*

No. 158.

HEADQUARTERS DEPARTMENT OF CUBA,  
*Havana, May 16, 1902.*

It is hereby made known to the people of Cuba:

1. That the Congress of Cuba elected on December 31, 1901, and February 24, 1902, under the provisions of the electoral law published in Orders No. 218, October 14, 1901, these headquarters, having been duly convened in Havana on the 5th day of May, 1902, pursuant to Orders No. 101, April 14, 1902, these headquarters, has examined into the credentials and decided as to the validity of the election of its members and has found and decided that the following-named persons have been duly elected senators:

	Province.
Adolfo Cabello y Bermúdez.....	Havana.
Nicasio Estrada y Mora.....	"
Carlos I. Párraga y Hernández.....	"
Alfredo Zayas y Alfonso.....	"
Luis Fortún y Govín.....	Matanzas.
Pedro E. Betancourt y Dávalos.....	"
Domingo Méndez Capote.....	"
Manuel Sanguily y Garit.....	"

	Province.
Antonio Sánchez Bustamante y Sirvent .....	Pinar del Rfo.
Manuel Lazo Valdés .....	"
Ricardo Dolz y Arango .....	"
Antonio Gonzáles Beltrán .....	"
Francisco Carillo y Morales .....	Santa Clara.
José de Jesús Monteagudo y Consuegra .....	"
Martín Morúa Delgado .....	"
José Antonio Frías y Pérez .....	"
Salvador Cisneros Betancourt .....	Puerto Príncipe.
Manuel Ramón Silva Zayas .....	"
Augusto Betancourt Pichardo .....	"
Tomás Recio Loináz .....	"
Antonio Bravo Correoso .....	Santiago de Cuba.
Eudaldo Tamayo Pavón .....	"
José Fernández Rondán .....	"
Federico Rey Bruchet .....	"

and the following-named persons have been duly elected representatives:

	Province.
Gonzalo de Quesada .....	Pinar del Rfo.
Alberto Nodarse .....	"
Alfredo Betancourt Manduley .....	"
Faustino Guerra .....	"
Guillermo Gonzáles Arocha .....	"
José Antonio Blanco .....	"
José Rodríguez Acosta .....	"
Juan José de la Maza y Artola .....	Havana.
Francisco Peraza .....	"
Augustín García Osuna .....	"
Mario García Kohly .....	"
Ambrosio Borjes .....	"
José Lorenzo Castellanos .....	"
Gustavo Pérez Abreu .....	"
Carlos de la Torre .....	"
Felipe Gonzáles Sarraín .....	"
Antonio Gonzalo Pérez .....	"
Francisco Leyte Vidal .....	"
Francisco Chenard .....	"
Bernabé Boza .....	"
José A. Malberti .....	"
José Manuel Govín .....	"
Carlos Font Sterling .....	"
Juan Antonio Garmendía .....	Matanzas.
Manuel Sobrado .....	"
Teodoro Cardenal .....	"
Joaquín García Pola .....	"
Felipe Fontanills .....	"
Alejandro Neyra .....	"
Fernando Méndez Capote .....	"
Juan Felipe Risquet .....	"
Pedro Cué .....	Santa Clara.
José M. Núñez .....	"
Ricardo Fusté .....	"
Pebro Albarran .....	"
Carlos Mendieta .....	"
Santiago García Cañizares .....	"
Enrique Villendas .....	"
Antonio Torrado .....	"
Pelayo García .....	"
Rafael Martínez Ortíz .....	"
Manuel Gutiérrez Quirós .....	"
Gonzalo García Vieta .....	"
Fernando Escobar .....	"
Augustín Cruz Gonzáles .....	"
Juan Xiqués y Arango .....	Puerto Príncipe.
Pedro Mendoza Guerra .....	"

	Province.
Enrique Loináz del Castillo .....	Puerto Príncipe.
Francisco Duque Estrada Varona .....	“
Rafael Portuondo Tamayo .....	Santiago de Cuba.
Carlos Manuel de Céspedes .....	“
Luis A. Columbié .....	“
Mariano Corona .....	“
Pedro Martínez Rojas .....	“
Antonio Poveda Ferrer .....	“
Juan León Bello .....	“
Augustín Cebreco .....	“
Alvaro Catá .....	“
Américo Fera Nogales .....	“
Antonio Masferrer y Grave de Peralta .....	“
Faustino Sirvén .....	“

2. That the Congress so convened, after counting and ratifying the electoral vote has found and proclaimed to be elected President of the Republic of Cuba Tomás Estrada Palma, and to be elected Vice-President of the Republic of Cuba Luis Estévez Romero.

3. That the said Congress has adjourned to meet at Havana on the 20th day of May, 1902, at 12 o'clock noon.

4. That on the said 20th day of May, 1902, at 12 o'clock noon, the constitution adopted by the constitutional convention at Havana on the 21st day of February, 1901, together with the appendix to the said constitution adopted by said convention on the 12th day of June, 1901, will be promulgated as the constitution of the Republic of Cuba, and will go into full force and effect; and thereupon and at that time the occupation of Cuba by the United States the military government of the island will cease and determine, and the government and control of the island will be transferred to the President and Congress so elected, to be held and exercised by them under the constitution so promulgated.

Such transfer will be upon the understanding and condition that the new government does thereby and by the acceptance thereof, pursuant to the provisions of the said appendix to the constitution, assume and undertake all and several the obligations assumed by the United States with respect to Cuba by the treaty between the United States of America and Her Majesty the Queen Regent of Spain, signed at Paris on the 10th day of December, 1898.

LEONARD WOOD,  
*Military Governor.*

—

*Martes, 20 de Mayo de 1902. Gaceta de la Habana (Periódico Oficial del Gobierno). Edición Extraordinaria. Parte Oficial. Administración General. Gobierno Militar de la Isla de Cuba.*

*No. 181.*

CUARTEL GENERAL, DEPARTAMENTO DE CUBA,  
*Habana, Mayo 20 de 1902.*

La Constitución que sigue, acordada por la Convención Constituyente del pueblo de Cuba el día 21 de Febrero de 1901, juntamente é incluyendo el Apéndice á la misma acordado por dicha Convención el día 12 de Junio de 1901, queda por la presente promulgada como Constitución de la República de Cuba, y se declara que queda en todo su vigor y efecto desde esta fecha en adelante:



## CONSTITUCIÓN DE LA REPÚBLICA DE CUBA.

Nosotros, los Delegados del pueblo de Cuba, reunidos en Convención Constituyente, á fin de redactar y adoptar la Ley Fundamental de su organización como Estado independiente y soberano, estableciendo un gobierno capaz de cumplir sus obligaciones internacionales, mantener el orden, asegurar la libertad y la justicia y promover el bienestar general—acordamos y adoptamos, invocando el favor de Dios, la siguiente Constitución:

### TÍTULO I.

#### DE LA NACIÓN, DE SU FORMA DE GOBIERNO, Y DEL TERRITORIO NACIONAL.

ARTÍCULO 1.º El pueblo de Cuba se constituye en Estado independiente y soberano, y adopta, como forma de gobierno, la republicana.

ARTÍCULO 2.º Componen el territorio de la República, la Isla de Cuba, así como las islas y cayos adyacentes que con ella estaban bajo la soberanía de España hasta la ratificación del Tratado de París de 10 de Diciembre de 1898.

ARTÍCULO 3.º El territorio de la República se divide en las seis Provincias que existen actualmente, y con sus mismos límites; correspondiendo al Consejo Provincial de cada una determinar sus respectivas denominaciones.

Las Provincias podrán incorporarse unas á otras ó dividirse para formar nuevas Provincias, mediante acuerdo de los respectivos Consejos Provinciales y aprobación del Congreso.

### TÍTULO II.

#### DE LOS CUBANOS.

ARTÍCULO 4.º La condición de cubano se adquiere por nacimiento ó por naturalización.

ARTÍCULO 5.º Son cubanos por nacimiento:

1.º Los nacidos, dentro ó fuera del territorio de la República, de padres cubanos.

2.º Los nacidos en el territorio de la República de padres extranjeros, siempre que, cumplida la mayor edad, reclamen su inscripción, como cubanos, en el Registro correspondiente.

3.º Los nacidos en el extranjero de padres naturales de Cuba que hayan perdido la nacionalidad cubana, siempre que, cumplida la mayor edad, reclamen su inscripción, como cubanos, en el mismo Registro.

ARTÍCULO 6.º Son cubanos por naturalización:

1.º Los extranjeros que habiendo pertenecido al Ejército Libertador reclamen la nacionalidad cubana dentro de los seis meses siguientes á la promulgación de esta Constitución.

2.º Los extranjeros que establecidos en Cuba antes del 1.º de Enero de 1899 hayan conservado su domicilio después de dicha fecha, siempre que reclamen la nacionalidad cubana dentro de los seis meses siguientes á la promulgación de esta Constitución, ó, si fueren menores, dentro de un plazo igual desde que alcanzaren la mayoría de edad.

3.º Los extranjeros que, después de cinco años de residencia en el territorio de la República, y no menos de dos desde que declaren su

intención de adquirir la nacionalidad cubana, obtengan carta de naturalización con arreglo á las leyes.

4.º Los españoles residentes en el territorio de Cuba el 11 de Abril de 1899 que no se hayan inscripto como tales españoles en los Registros correspondientes, hasta igual mes y día de 1900.

5.º Los africanos que hayan sido esclavos en Cuba, y los emancipados comprendidos en el artículo 13 del Tratado de 28 de Junio de 1835, celebrado entre España é Inglaterra.

ARTÍCULO 7.º La condición de cubano se pierde:

1.º Por adquirir ciudadanía extranjera.

2.º Por admitir empleo ú honores de otro Gobierno sin licencia del Senado.

3.º Por entrar al servicio de las armas de una Nación extranjera sin la misma licencia.

4.º Por residir el cubano naturalizado cinco años continuos en el país de su nacimiento, á no ser por razón de empleo ó comisión del Gobierno de la República.

ARTÍCULO 8.º La condición de cubano podrá recobrase con arreglo á lo que prescriban las leyes.

ARTÍCULO 9.º Todo cubano está obligado—

1.º Á servir á la patria con las armas, en los casos y forma que determinen las leyes.

2.º Á contribuir para los gastos públicos, en la forma y proporción que dispongan las leyes.

### TÍTULO III.

#### DE LOS EXTRANJEROS.

ARTÍCULO 10. Los extranjeros residentes en el territorio de la República, se equiparán á los cubanos:

1.º En cuanto á la protección de sus personas y bienes.

2.º En cuanto al goce de los derechos garantizados en la sección 1.ª del título siguiente, con excepción de los que en ella se reconocen exclusivamente á los nacionales.

3.º En cuanto al goce de los derechos civiles en las condiciones y con las limitaciones que establezca la ley de Extranjería.

4.º En cuanto á la obligación de observar y cumplir las leyes, decretos, reglamentos y demás disposiciones que estén en vigor en la República.

5.º En cuanto á la sumisión á la potestad y á las resoluciones de los Tribunales y demás Autoridades de la República.

6.º Y en cuanto á la obligación de contribuir á los gastos públicos del Estado, la Provincia y el Municipio.

### TÍTULO IV.

#### DE LOS DERECHOS QUE GARANTIZA ESTA CONSTITUCIÓN.

##### SECCIÓN PRIMERA.—*Derechos individuales.*

ARTÍCULO 11. Todos los cubanos son iguales ante la Ley. La República no reconoce fueros ni privilegios personales.

ARTÍCULO 12. Ninguna ley tendrá efecto retroactivo, excepto las penales, cuando sean favorables al delincuente ó procesado.

ARTÍCULO 13. Las obligaciones de carácter civil que nazcan de los contratos ó de otros actos ú omisiones que las produzcan, no podrán ser anuladas ni alteradas por el Poder Legislativo ni por el Ejecutivo.

ARTÍCULO 14. No podrá imponerse, en ningún caso, la pena de muerte por delitos de carácter político, los cuales serán definidos por la Ley.

ARTÍCULO 15. Nadie podrá ser detenido sino en los casos y en la forma que prescriban las leyes.

ARTÍCULO 16. Todo detenido será puesto en libertad ó entregado al Juez ó Tribunal competente dentro de las veinticuatro horas siguientes al acto de la detención.

ARTÍCULO 17. Toda detención se dejará sin efecto, ó se elevará á prisión, dentro de las setenta y dos horas de haber sido entregado el detenido al Juez ó Tribunal competente.

Dentro del mismo plazo se notificará al interesado la providencia que se dictare.

ARTÍCULO 18. Nadie podrá ser preso, sino en virtud de mandamiento de Juez ó Tribunal competente.

El auto en que se haya dictado el mandamiento se ratificará ó repondrá, óído el presunto reo, dentro de las setenta y dos horas siguientes al acto de la prisión.

ARTÍCULO 19. Nadie podrá ser procesado ni sentenciado sino por Juez ó Tribunal competente, en virtud de leyes anteriores al delito y en la forma que éstas establezcan.

ARTÍCULO 20. Toda persona detenida ó presa sin las formalidades legales, ó fuera de los casos previstos en esta Constitución ó en las leyes, será puesta en libertad á petición suya ó de cualquier ciudadano.

La Ley determinará la forma de proceder sumariamente en este caso.

ARTÍCULO 21. Nadie está obligado á declarar contra sí mismo, ni contra su cónyuge ó sus parientes dentro del cuarto grado de consanguinidad ó segundo de afinidad.

ARTÍCULO 22. Es inviolable el secreto de la correspondencia y demás documentos privados, y ni aquélla ni éstos podrán ser ocupados ni examinados sino por disposición de Autoridad competente y con las formalidades que prescriban las leyes. En todo caso se guardará secreto respecto de los extremos ajenos al asunto que motive la ocupación ó examen.

ARTÍCULO 23. El domicilio es inviolable, y en consecuencia nadie podrá penetrar de noche en el ajeno, sin el consentimiento de su morador, á no ser para auxiliar ó socorrer á víctimas de delito ó desastre; ni de día, sino en los casos y en la forma determinados por las leyes.

ARTÍCULO 24. Nadie podrá ser compelido á mudar de domicilio ó residencia sino por mandato de Autoridad competente y en los casos prescriptos por las leyes.

ARTÍCULO 25. Toda persona podrá libremente, y sin sujeción á censura previa, emitir su pensamiento, de palabra ó por escrito, por medio de la imprenta ó por cualquier otro procedimiento; sin perjuicio de las responsabilidades que impongan las leyes, cuando por alguno de aquellos medios se atente contra la honra de las personas, el orden social ó la tranquilidad pública.

ARTÍCULO 26. Es libre la profesión de todas las religiones así como el ejercicio de todos los cultos, sin otra limitación que el respeto á la moral cristiana y al orden público.

La Iglesia estará separada del Estado, el cual no podrá subvencionar, en caso alguno, ningún culto.

ARTÍCULO 27. Toda persona tiene el derecho de dirigir peticiones á las Autoridades; de que sus peticiones sean resueltas, y de que se le comunique la resolución que á ellas recaiga.

ARTÍCULO 28. Todos los habitantes de la República tienen el derecho de reunirse pacíficamente y sin armas, y el de asociarse para todos los fines lícitos de la vida.

ARTÍCULO 29. Toda persona podrá entrar en el territorio de la República, salir de él, viajar dentro de sus límites, y mudar de residencia, sin necesidad de carta de seguridad, pasaporte ú otro requisito semejante; salvo lo que se disponga en las leyes sobre inmigración, y las facultades atribuidas á la Autoridad en caso de responsabilidad criminal.

ARTÍCULO 30. Ningún cubano podrá ser expatriado, ni á ninguno podrá prohibírsele la entrada en el territorio de la República.

ARTÍCULO 31. La enseñanza primaria es obligatoria, y así ésta como la de Artes y Oficios serán gratuitas. Ambas estarán á cargo del Estado, mientras no puedan sostenerlas respectivamente, por carecer de recursos suficientes, los Municipios y las Provincias.

La segunda enseñanza y la superior estarán á cargo del Estado. No obstante, toda persona podrá aprender ó enseñar libremente cualquiera ciencia, arte ó profesión, y fundar y sostener establecimientos de educación y de enseñanza; pero corresponde al Estado la determinación de las profesiones en que exija títulos especiales, la de las condiciones para su ejercicio, la de los requisitos necesarios para obtener los títulos, y la expedición de los mismos, de conformidad con lo que establezcan las leyes.

ARTÍCULO 32. Nadie podrá ser privado de su propiedad, sino por Autoridad competente y por causa justificada de utilidad pública, previa la correspondiente indemnización. Si no precediere este requisito, los Jueces y Tribunales ampararán y, en su caso, reintegrarán al expropiado.

ARTÍCULO 33. No podrá imponerse, en ningún caso, la pena de confiscación de bienes.

ARTÍCULO 34. Nadie está obligado á pagar contribución ni impuesto que no estuvieren legalmente establecidos, y cuya cobranza no se hiciere en la forma prescrita por las leyes.

ARTÍCULO 35. Todo autor ó inventor gozará de la propiedad exclusiva de su obra ó invención, por el tiempo y en la forma que determine la Ley.

ARTÍCULO 36. La enumeración de los derechos garantizados expresamente por esta Constitución, no excluye otros que se deriven del principio de la soberanía del pueblo y de la forma republicana de gobierno.

ARTÍCULO 37. Las leyes que regulen el ejercicio de los derechos que esta Constitución garantiza, serán nulas si los disminuyen, restringen ó adulteran.

#### SECCIÓN SEGUNDA.—*Derecho de sufragio.*

ARTÍCULO 38. Todos los cubanos, varones, mayores de veinte y un años, tienen derecho de sufragio, con excepción de los siguientes:

- 1.º Los asilados.
- 2.º Los incapacitados mentalmente, previa declaración judicial de su incapacidad.
- 3.º Los inhabilitados judicialmente por causa de delito.

4.º Los individuos pertenecientes á las fuerzas de mar y tierra, que estuvieren en servicio activo.

ARTÍCULO 39. Las leyes establecerán reglas y procedimientos que aseguren la intervención de las minorías en la formación del Censo de electores y demás operaciones electorales y su representación en la Cámara de Representantes, en los Consejos Provinciales y en los Ayuntamientos.

SECCIÓN TERCERA.—*Suspensión de las garantías constitucionales.*

ARTÍCULO 40. Las garantías establecidas en los artículos décimo quinto, décimo sexto, décimo séptimo, décimo nono, vigésimo segundo, vigésimo tercero, vigésimo cuarto y vigésimo séptimo de la sección primera de este Título, no podrán suspenderse en toda la República ni en parte de ella, sino temporalmente y cuando lo exija la seguridad del Estado, en caso de invasión del territorio ó de grave perturbación del orden que amenace la paz pública.

ARTÍCULO 41. El territorio en que fueren suspendidas las garantías que se determinan en el artículo anterior, se registrá durante la suspensión, por la Ley de Orden Público, dictada de antemano. Pero ni en dicha ley, ni en otra alguna, podrá disponerse la suspensión de más garantías que las ya mencionadas.

Tampoco podrá hacerse, durante la suspensión, declaración de nuevos delitos, ni imponerse otras penas que las establecidas en las leyes vigentes al decretarse la suspensión.

Queda prohibido al Poder Ejecutivo el extrañamiento ó la deportación de los ciudadanos, sin que pueda desterrarlos á más de ciento veinte kilómetros de su domicilio, ni detenerlos por más de diez días, sin hacer entrega de ellos á la Autoridad judicial; ni repetir la detención durante el tiempo de la suspensión de garantías. Los detenidos no podrán serlo sino en departamentos especiales de los establecimientos públicos, destinados á la detención de procesados por causa de delitos comunes.

ARTÍCULO 42. La suspensión de las garantías de que se trata en el artículo cuadragésimo, sólo podrá dictarse por medio de una ley ó, cuando no estuviere reunido el Congreso, por un decreto del Presidente de la República. Pero éste no podrá decretar la suspensión más de una vez durante el período comprendido entre dos legislaturas, ni por tiempo indefinido, ni mayor de treinta días, sin convocar al Congreso en el mismo decreto de suspensión. En todo caso deberá darle cuenta para que resuelva lo que estime procedente.

TÍTULO V.

DE LA SOBERANÍA Y DE LOS PODERES PÚBLICOS.

ARTÍCULO 43. La soberanía reside en el pueblo de Cuba, y de éste dimanán todos los Poderes públicos.

TÍTULO VI.

DEL PODER LEGISLATIVO.

SECCIÓN PRIMERA.—*De los Cuerpos Colegisladores.*

ARTÍCULO 44. El Poder Legislativo se ejerce por dos cuerpos electivos, que se denominan "Cámara de Representantes" y "Senado," y conjuntamente reciben el nombre de "Congreso."

SECCIÓN SEGUNDA.—*Del Senado, su composición y atribuciones.*

ARTÍCULO 45. El Senado se compondrá de cuatro Senadores por provincia, elegidos, en cada una, para un período de ocho años, por los Consejeros Provinciales y por doble número de Compromisarios, constituidos con aquéllos en Junta electoral.

La mitad de los Compromisarios serán mayores contribuyentes, y la otra mitad reunirán las condiciones de capacidad que determine la Ley; debiendo ser todos, además, mayores de edad y vecinos de términos municipales de la provincia.

La elección de los Compromisarios se hará por los electores de la Provincia, cien días antes de la de Senadores.

El Senado se renovará, por mitad, cada cuatro años.

ARTÍCULO 46. Para ser Senador se requiere:

- 1.° Ser cubano por nacimiento.
- 2.° Haber cumplido 35 años de edad.
- 3.° Hallarse en el pleno goce de los derechos civiles y políticos.

ARTÍCULO 47. Son atribuciones propias del Senado:

1.° Juzgar, constituido en Tribunal de Justicia, al Presidente de la República, cuando fuere acusado por la Cámara de Representantes, de delito contra la seguridad exterior del Estado, contra el libre funcionamiento de los Poderes Legislativo ó Judicial, ó de infracción de los preceptos constitucionales.

2.° Juzgar, constituido en Tribunal de Justicia, á los Secretarios del Despacho, cuando fueren acusados por la Cámara de Representantes, de delito contra la seguridad exterior del Estado, contra el libre funcionamiento de los Poderes Legislativo ó Judicial, de infracción de los preceptos constitucionales, ó de cualquier otro delito de carácter político que las leyes determinen.

3.° Juzgar, constituido en Tribunal de Justicia, á los Gobernadores de las Provincias, cuando fueren acusados por el Consejo Provincial ó por el Presidente de la República, de cualquiera de los delitos expresados en el párrafo anterior.

Cuando el Senado se constituya en Tribunal de Justicia, será presidido por el Presidente del Tribunal Supremo, y no podrá imponer á los acusados otras penas que la de destitución, ó las de destitución ó inhabilitación para el ejercicio de cargos públicos, sin perjuicio de que los Tribunales que las leyes declaren competentes, les impongan cualquier otra en que hubieren incurrido.

4.° Aprobar los nombramientos que haga el Presidente de la República, del Presidente y Magistrados del Tribunal Supremo de Justicia; de los Representantes diplomáticos y Agentes consulares de la Nación, y de los demás funcionarios cuyo nombramiento requiera su aprobación, según las leyes.

5.° Autorizar á los nacionales para admitir empleos ú honores de otro Gobierno, ó para servirlo con las armas.

6.° Aprobar los Tratados que negociare el Presidente de la República con otras naciones.

SECCIÓN TERCERA.—*De la Cámara de Representantes, su composición y atribuciones.*

ARTÍCULO 48. La Cámara de Representantes se compondrá de un Representante por cada veinte y cinco mil habitantes ó fracción de más

de doce mil quinientos, elegido, para un período de cuatro años, por sufragio directo y en la forma que determine la Ley.

La Cámara de Representantes se renovará, por mitad, cada dos años.

ARTÍCULO 49. Para ser Representante se requiere:

1.º Ser cubano por nacimiento ó naturalizado con ocho años de residencia en la República, contados desde la naturalización.

2.º Haber cumplido veinte y cinco años de edad.

3.º Hallarse en el pleno goce de los derechos civiles y políticos.

ARTÍCULO 50. Corresponde á la Cámara de Representantes, acusar, ante el Senado, al Presidente de la República y á los Secretarios del Despacho, en los casos determinados en los párrafos primero y segundo del artículo 47, cuando las dos terceras partes del número total de Representantes, acordaren en sesión secreta la acusación.

SECCIÓN CUARTA.—*Disposiciones comunes á los Cuerpos Colegisladores.*

ARTÍCULO 51. Los cargos de Senador y de Representante son incompatibles con cualesquiera otros retribuidos, de nombramiento del Gobierno; exceptuándose el de Catedrático por oposición de Establecimiento oficial, obtenido con anterioridad á la elección.

ARTÍCULO 52. Los Senadores y Representantes recibirán del Estado una dotación, igual para ambos cargos, y cuya cuantía podrá ser alterada en todo tiempo; pero no surtirá efecto la alteración hasta que sean renovados los Cuerpos Colegisladores.

ARTÍCULO 53. Los Senadores y Representantes serán inviolables por las opiniones y votos que emitan en el ejercicio de sus cargos. Los Senadores y Representantes sólo podrán ser detenidos ó procesados con autorización del Cuerpo á que pertenezcan, si estuviere reunido el Congreso; excepto en el caso de ser hallados *in fraganti* en la comisión de algún delito. En este caso, y en el de ser detenidos ó procesados cuando estuviere cerrado el Congreso, se dará cuenta, lo más pronto posible, al Cuerpo respectivo, para la resolución que corresponda.

ARTÍCULO 54. Las Cámaras abrirán y cerrarán sus sesiones en un mismo día, residirán en una misma población y no podrán trasladarse á otro lugar, ni suspender sus sesiones por más de tres días, sino por acuerdo de ambas.

Tampoco podrán comenzar sus sesiones sin la presencia de las dos terceras partes del número total de sus miembros; ni continuarlas sin la mayoría absoluta de ellos.

ARTÍCULO 55. Cada Cámara resolverá sobre la validez de la elección de sus respectivos miembros, y sobre las renunciaciones que presenten. Ningún Senador ó Representante podrá ser expulsado de la Cámara á que pertenezca, sino en virtud de causa previamente determinada y por el acuerdo de las dos terceras partes, por lo menos, del número total de sus miembros.

ARTÍCULO 56. Cada Cámara formará su reglamento, y elegirá entre sus miembros, su Presidente, Vice-Presidentes y Secretarios. No obstante, el Presidente del Senado sólo ejercerá su cargo cuando falte el Vice-Presidente de la República, ó esté ejerciendo la Presidencia de la misma.

SECCIÓN QUINTA.—*Del Congreso y sus atribuciones.*

ARTÍCULO 57. El Congreso se reunirá por derecho propio, dos veces al año, y permanecerá funcionando durante cuarenta días hábiles, por

lo menos, en cada legislatura. Una empezará el primer lunes de Abril y la otra el primer lunes de Noviembre.

Se reunirá en sesiones extraordinarias en los casos y en la forma que determinen los Reglamentos de los Cuerpos Colegisladores, y cuando el Presidente de la República lo convoque con arreglo á lo establecido en esta Constitución. En dichos casos sólo se ocupará del asunto ó asuntos que motiven su reunión.

ARTÍCULO 58. El Congreso se reunirá en un solo Cuerpo para proclamar al Presidente y Vice-Presidente de la República, previa rectificación y comprobación del escrutinio.

En este caso desempeñará la Presidencia del Congreso, el Presidente del Senado, y en su defecto, el de la Cámara de Representantes, á título de Vice-Presidente del propio Congreso.

Si del escrutinio para Presidente resultare que ninguno de los candidatos reúne mayoría absoluta de votos, ó hubiere empate, el Congreso, por igual mayoría, elegirá el Presidente de entre los dos candidatos que hubieren obtenido mayor número de votos.

Si fuesen más de dos los que se encontraren en este caso, por haber obtenido dos ó más candidatos igual número de votos, elegirá entre todos ellos el Congreso.

Si en el Congreso, resultare también empate, se repetirá la votación; y si el resultado de ésta fuese el mismo el voto del Presidente decidirá.

El procedimiento establecido en el párrafo anterior se aplicará á la elección del Vice-Presidente de la República.

El escrutinio se efectuará con anterioridad á la expiración del término presidencial.

ARTÍCULO 59. Son atribuciones propias del Congreso:

1.º Formar los Códigos y las leyes de carácter general; determinar el regimen que deba observarse para las elecciones generales, provinciales y municipales; dictar las disposiciones que regulen y organicen cuanto se relaciona con la administración general, la provincial y la municipal; y todas las demás leyes y resoluciones que estimare convenientes sobre cualesquiera otros asuntos de interés público.

2.º Discutir y aprobar los presupuestos de gastos é ingresos del Estado. Dichos gastos é ingresos, con excepción de los que se mencionarán más adelante, se incluirán en presupuestos anuales y sólo registrarán durante el año para el cual hubieren sido aprobados.

Los gastos del Congreso; los de la Administración de Justicia; los de intereses y amortización de empréstitos, y los ingresos con que deben ser cubiertos, tendrán el carácter de permanentes y se incluirán en presupuesto fijo, que regirá mientras no sea reformado por leyes especiales.

3.º Acordar empréstitos, pero con la obligación de votar, al mismo tiempo, los ingresos permanentes, necesarios para el pago de intereses y amortización.

Todo acuerdo sobre empréstitos requiere el voto de las dos terceras partes del número total de los miembros de cada Cuerpo Colegislador.

4.º Acuñar moneda, determinando su patrón, ley, valor y denominación.

5.º Regular el sistema de pesas y medidas.

6.º Dictar disposiciones para el regimen y fomento del comercio interior y exterior.

7.º Regular los servicios de comunicaciones y ferrocarriles, caminos, canales y puertos, creando los que exija la conveniencia pública.



8.º Establecer las contribuciones é impuestos, de carácter nacional, que sean necesarios para las atenciones del Estado.

9.º Fijar las reglas y procedimientos para obtener la naturalización.

10. Conceder amnistías.

11. Fijar el número de las fuerzas de mar y tierra y determinar su organización.

12. Declarar la guerra y aprobar los Tratados de paz, que el Presidente de la República haya negociado.

13. Designar, por medio de una ley especial, quién debe ocupar la Presidencia de la República en el caso de que el Presidente y el Vice-Presidente sean destituidos, fallezcan, renuncien ó se incapaciten.

ARTÍCULO 60. El Congreso no podrá incluir en las leyes de presupuestos, disposiciones que ocasionen reformas legislativas ó administrativas de otro orden; ni podrá reducir ó suprimir ingresos de carácter permanente, sin establecer al mismo tiempo otros que lo sustituyan, salvo el caso que la reducción ó supresión procedan de reducción ó supresión de gastos permanentes equivalentes; ni asignar á ningún servicio que deba ser dotado en el presupuesto anual, mayor cantidad que la propuesta en el proyecto del Gobierno; pero sí podrá crear nuevos servicios y reformar ó ampliar los existentes, por medio de leyes especiales.

SECCIÓN SEXTA.—*De la iniciativa y formación de las leyes, su sanción y promulgación.*

ARTÍCULO 61. La iniciativa de las leyes se ejercerá por cada uno de los Cuerpos Colegisladores indistintamente.

ARTÍCULO 62. Todo proyecto de ley que haya obtenido la aprobación de ambos Cuerpos Colegisladores, y toda resolución de los mismos que haya de ser ejecutada por el Presidente de la República, deberán presentarse á éste para su sanción. Si los aprueba, los autorizará desde luego; devolviéndolos en otro caso, con las objeciones que hiciere, al Cuerpo Colegislador que los hubiere propuesto; el cual consignará las referidas objeciones íntegramente en acta, discutiendo de nuevo el proyecto ó resolución.

Si después de esta discusión dos terceras partes del número total de los miembros del Cuerpo Colegislador, votasen en favor del proyecto ó resolución, se pasará, con las objeciones del Presidente, al otro Cuerpo, que también lo discutirá y si por igual mayoría lo aprueba, será ley. En todos estos casos las votaciones serán nominales.

Si dentro de los diez días hábiles siguientes á la remisión del proyecto ó resolución al Presidente, éste no lo devolviere, se tendrá por sancionado y será ley.

Si, dentro de los últimos diez días de una legislatura, se presentare un proyecto de ley al Presidente de la República, y éste se propusiere utilizar todo el término que, al efecto de la sanción, se le concede en el párrafo anterior, comunicará su propósito, en el mismo día, al Congreso, á fin de que permanezca reunido, si lo quisiere, hasta el vencimiento del expresado término. De no hacerlo así el Presidente, se tendrá por sancionado el proyecto y será ley.

Ningún proyecto de ley desechado totalmente por algunos de los Cuerpos Colegisladores, podrá discutirse de nuevo en la misma legislatura.

**ARTÍCULO 63.** Toda ley será promulgada dentro de los diez días siguientes al de su sanción, proceda ésta del Presidente ó del Congreso, según los casos mencionados en el artículo precedente.

## TÍTULO VII.

### DEL PODER EJECUTIVO.

#### SECCIÓN PRIMERA.—*Del ejercicio del Poder Ejecutivo.*

**ARTÍCULO 64.** El Poder Ejecutivo se ejerce por el Presidente de la República.

#### SECCIÓN SEGUNDA.—*Del Presidente de la República, sus atribuciones y deberes.*

**ARTÍCULO 65.** Para ser Presidente de la República se requiere:

1.º Ser cubano por nacimiento ó naturalización, y en este último caso, haber servido con las armas á Cuba, en sus guerras de independencia, diez años por lo menos.

2.º Haber cumplido cuarenta años de edad.

3.º Hallarse en el pleno goce de los derechos civiles y políticos.

**ARTÍCULO 66.** El Presidente de la República será elegido por sufragio de segundo grado, en un solo día, y conforme al procedimiento que establezca la Ley.

El cargo durará cuatro años; y nadie podrá ser Presidente en tres períodos consecutivos.

**ARTÍCULO 67.** El Presidente jurará ó prometerá, ante el Tribunal Supremo de Justicia, al tomar posesión de su cargo, desempeñarlo fielmente, cumpliendo y haciendo cumplir la Constitución y las leyes.

**ARTÍCULO 68.** Corresponde al Presidente de la República:

1.º Sancionar y promulgar las leyes, ejecutarlas y hacerlas ejecutar; dictar, cuando no lo hubiere hecho el Congreso, los reglamentos para la mejor ejecución de las leyes; y expedir, además, los decretos y las ordenes que, para este fin y para cuando incumba al gobierno y administración del Estado, creyere convenientes, sin contravenir en ningún caso lo establecido en dichas leyes.

2.º Convocar á sesiones extraordinarias al Congreso, ó solamente al Senado, en los casos que señala esta Constitución, ó cuando, á su juicio, fuere necesario.

3.º Suspender las sesiones del Congreso, cuando tratándose en éste de su suspensión, no hubiere acuerdo acerca de ella entre los Cuerpos Colegisladores.

4.º Presentar al Congreso, al principio de cada legislatura y siempre que lo estimare oportuno, un Mensaje referente á los actos de la Administración, y demostrativo del estado general de la República; y recomendar, además, la adopción de las leyes y resoluciones que creyere necesarias ó útiles.

5.º Presentar al Congreso, en cualquiera de sus Cámaras, y antes del día quince de Noviembre, el Proyecto de los Presupuestos anuales.

6.º Facilitar al Congreso los informes que éste solicitare sobre toda clase de asuntos que no exijan reserva.

7.º Dirigir las negociaciones diplomáticas, y celebrar tratados con las otras naciones, debiendo someterlos á la aprobación del Senado, sin cuyo requisito no tendrán validez ni obligarán á la República.

8.º Nombrar y remover libremente á los Secretarios del Despacho, dando cuenta al Congreso.

9.º Nombrar, con la aprobación del Senado, al Presidente y Magistrados del Tribunal Supremo de Justicia, y á los Representantes diplomáticos y Agentes consulares de la República; pudiendo hacer nombramientos interinos de dichos funcionarios, cuando en caso de vacante, no esté reunido el Senado.

10. Nombrar, para el desempeño de los demás cargos instituidos por la Ley, á los funcionarios correspondientes, cuyo nombramiento no esté atribuído á otras Autoridades.

11. Suspender el ejercicio de los derechos que se enumeran en el artículo 40 de esta Constitución, en los casos y en la forma que se expresan en los artículos 41 y 42.

12. Suspender los acuerdos de los Consejos Provinciales y de los Ayuntamientos, en los casos y en la forma que determina esta Constitución.

13. Decretar la suspensión de los Gobernadores de Provincia, en los casos de extralimitación de funciones y de infracción de las leyes, dando cuenta al Senado, según lo que se establezca, para la resolución que corresponda.

14. Acusar á los Gobernadores de Provincia en los casos expresados en el párrafo tercero del artículo 47.

15. Indultar á los delincuentes con arreglo á lo que prescriba la Ley, excepto cuando se trate de funcionarios públicos penados por delitos cometidos en el ejercicio de sus funciones.

16. Recibir á los Representantes diplomáticos y admitir á los Agentes consulares de las otras Naciones.

17. Disponer, como Jefe Supremo, de las fuerzas de mar y tierra de la República. Proveer á la defensa de su territorio, dando cuenta al Congreso; y á la conservación del orden interior. Siempre que hubiere peligro de invasión ó cuando alguna rebelión amenazare gravemente la seguridad pública, no estando reunido el Congreso, el Presidente lo convocará sin demora para la resolución que corresponda.

ARTÍCULO 69. El Presidente no podrá salir del territorio de la República sin autorización del Congreso.

ARTÍCULO 70. El Presidente será responsable, ante el Tribunal Supremo de Justicia, por los delitos de carácter común que cometiere durante el ejercicio de su cargo; pero no podrá ser procesado sin previa autorización del Senado.

ARTÍCULO 71. El Presidente recibirá del Estado una dotación, que podrá ser alterada en todo tiempo; pero no surtirá efecto la alteración sino en los períodos presidenciales siguientes á aquél en que se acordare.

## TÍTULO VIII.

### DEL VICE-PRESIDENTE DE LA REPÚBLICA.

ARTÍCULO 72. Habrá un Vice-Presidente de la República, que será elegido en la misma forma y para igual período de tiempo que el Presidente, y conjuntamente con éste; requiriéndose para ser Vice-Presidente las mismas condiciones que prescribe esta Constitución para ser Presidente.

ARTÍCULO 73. El Vice-Presidente de la República ejercerá la Presidencia del Senado; pero sólo tendrá voto en los casos de empate.

ARTÍCULO 74. Por falta, temporal ó definitiva, del Presidente de la República, le sustituirá el Vice-Presidente en el ejercicio del Poder Ejecutivo. Si la falta fuere definitiva durará la sustitución hasta la terminación del período presidencial.

ARTÍCULO 75. El Vice-Presidente recibirá del Estado una dotación, que podrá ser alterada en todo tiempo; pero no surtirá efecto la alteración sino en los períodos presidenciales siguientes á aquél en que se acordare.

#### TÍTULO IX.

##### DE LOS SECRETARIOS DEL DESPACHO.

ARTÍCULO 76. Para el ejercicio de sus atribuciones tendrá el Presidente de la República, los Secretarios del Despacho que determine la Ley; debiendo recaer el nombramiento de éstos en ciudadanos cubanos que se hallen en el pleno goce de los derechos civiles y políticos.

ARTÍCULO 77. Todos los decretos, ordenes y resoluciones del Presidente de la República habrán de ser refrendados por el Secretario del ramo correspondiente, sin cuyo requisito carecerán de fuerza obligatoria y no serán cumplidos.

ARTÍCULO 78. Los Secretarios serán personalmente responsables de los actos que refrenden, y, además, solidariamente, de los que, juntos, acuerden ó autoricen. Esta responsabilidad no excluye la personal y directa del Presidente de la República.

ARTÍCULO 79. Los Secretarios del Despacho serán acusados por la Cámara de Representantes, ante el Senado, en los casos que se mencionan en el párrafo segundo del artículo 47.

ARTÍCULO 80. Los Secretarios del Despacho recibirán del Estado una dotación que podrá ser alterada en todo tiempo; pero no surtirá efecto la alteración sino en los períodos presidenciales siguientes á aquél en que se acordare.

#### TÍTULO X.

##### DEL PODER JUDICIAL.

##### SECCIÓN PRIMERA.—*Del ejercicio del Poder Judicial.*

ARTÍCULO 81. El Poder Judicial se ejerce por un Tribunal Supremo de Justicia y por los demás Tribunales que las Leyes establezcan. Éstas regularán sus respectivas organización y facultades, el modo de ejercerlas y las condiciones que deban concurrir en los funcionarios que los compongan.

##### SECCIÓN SEGUNDA.—*Del Tribunal Supremo de Justicia.*

ARTÍCULO 82. Para ser Presidente ó Magistrado del Tribunal Supremo de Justicia, se requiere:

- 1.º Ser cubano por nacimiento.
- 2.º Haber cumplido treinta y cinco años de edad.
- 3.º Hallarse en el pleno goce de los derechos civiles y políticos y no haber sido condenado á pena aflictiva por delito común.
- 4.º Reunir, además, algunas de las circunstancias siguientes:  
Haber ejercido, en Cuba, durante diez años, por lo menos, la profesión de Abogado; ó desempeñado, por igual tiempo, funciones judi-

ciales; ó explicado, el mismo número de años, una cátedra de Derecho en Establecimiento oficial de Enseñanza.

Podrán ser también nombrados para los cargos de Presidente y Magistrados del Tribunal Supremo, siempre que reúnan las condiciones de los números 1, 2 y 3 de este artículo:

(a) Los que hubieren ejercido, en la Magistratura, cargo de categoría igual ó inmediatamente inferior, por el tiempo que determine la Ley.

(b) Los que, con anterioridad á la promulgación de esta Constitución, hubieren sido Magistrados del Tribunal Supremo de la Isla de Cuba.

El tiempo de ejercicio de funciones judiciales se computará como de ejercicio de la Abogacía; al efecto de capacitar á los Abogados para poder ser nombrados Magistrados del Tribunal Supremo.

ARTÍCULO 83. Además de las atribuciones que le estuvieron anteriormente señaladas y de las que en lo sucesivo le confieran las leyes, corresponden al Tribunal Supremo las siguientes:

1.ª Conocer de los recursos de casación.

2.ª Dirimir las competencias entre los Tribunales que le sean inmediatamente inferiores ó no tengan un superior común.

3.ª Conocer de los juicios en que litiguen entre sí el Estado, las Provincias y los Municipios.

4.ª Decidir sobre la constitucionalidad de las leyes, decretos y reglamentos, cuando fuere objeto de controversia entre partes.

#### SECCIÓN TERCERA.—*Disposiciones generales acerca de la Administración de Justicia.*

ARTÍCULO 84. La justicia se administrará gratuitamente en todo el territorio de la República.

ARTÍCULO 85. Los Tribunales conocerán de todos los juicios, ya sean civiles, criminales ó contencioso-administrativos.

ARTÍCULO 86. No se podrán crear, en ningún caso, ni bajo ninguna denominación, Comisiones judiciales ni Tribunales extraordinarios.

ARTÍCULO 87. Ningún funcionario del orden judicial podrá ser suspendido ni separado de su destino ó empleo, sino por razón de delito ú otra causa grave, debidamente acreditada, y siempre con su audiencia.

Tampoco podrá ser trasladado sin su consentimiento, á no ser por motivo evidente de conveniencia pública.

ARTÍCULO 88. Todos los funcionarios del orden judicial serán personalmente responsables, en la forma que determinen las leyes, de toda infracción de ley que cometieren.

ARTÍCULO 89. La dotación de los funcionarios del orden judicial, no podrá ser alterada sino en períodos mayores de cinco años, y por medio de una ley. Ésta no podrá asignar distintas dotaciones á cargos cuyo grado, categoría y funciones sean iguales.

ARTÍCULO 90. Los Tribunales de las fuerzas de mar y tierra se regularán por una ley orgánica especial.

### TÍTULO XI.

#### DEL RÉGIMEN PROVINCIAL.

##### SECCIÓN PRIMERA.—*Disposiciones generales.*

ARTÍCULO 91. La Provincia comprende los términos Municipales enclavados dentro de sus límites.

ARTÍCULO 92. En cada Provincia habrá un Gobernador y un Consejo Provincial, elegidos por sufragio de primer grado en la forma que prescriba la Ley.

El número de Consejeros, en cada una, no será menor de ocho ni mayor de veinte.

SECCIÓN SEGUNDA.—*De los Consejos Provinciales y sus atribuciones.*

ARTÍCULO 93. Corresponde á los Consejos Provinciales:

1.º Acordar sobre todos los asuntos que conciernan á la Provincia y que, por la Constitución, por los Tratados ó por las leyes, no correspondan á la competencia general del Estado ó á la privativa de los Ayuntamientos.

2.º Formar sus presupuestos, estableciendo los ingresos necesarios para cubrirlos, sin otra limitación que la de hacerlos compatibles con el sistema tributario del Estado.

3.º Acordar empréstitos para obras públicas de interés provincial; pero votando al mismo tiempo los ingresos permanentes necesarios para el pago de sus intereses y amortización.

Para que dichos empréstitos puedan realizarse, habrán de ser aprobados por las dos terceras partes de los Ayuntamientos de la Provincia.

4.º Acusar ante el Senado al Gobernador, en los casos determinados en el párrafo tercero del artículo 47, cuando los dos tercios del número total de los Consejeros Provinciales, acordaren, en sesión secreta, la acusación.

5.º Nombrar y remover los empleados provinciales con arreglo á lo que establezcan las leyes.

ARTÍCULO 94. Los Consejos Provinciales no podrán reducir ó suprimir ingresos de carácter permanente, sin establecer al mismo tiempo otros que los sustituyan; salvo en el caso de que la reducción ó supresión procedan de reducción ó supresión de gastos permanentes equivalentes.

ARTÍCULO 95. Los acuerdos de los Consejos Provinciales serán presentados al Gobernador de la Provincia. Si éste los aprobare, los autorizará con su firma. En otro caso, los devolverá, con sus objeciones, al Consejo, el cual discutirá de nuevo el asunto. Y, si después de la segunda discusión, las dos terceras partes del número total de Consejeros votaren en favor del acuerdo, éste será ejecutivo.

Cuando el Gobernador, transcurridos diez días desde la presentación de un acuerdo, no lo devolviera, se tendrá por aprobado y será también ejecutivo.

ARTÍCULO 96. Los acuerdos de los Consejos Provinciales podrán ser suspendidos por el Gobernador de la Provincia ó por el Presidente de la República, cuando, á su juicio, fueren contrarios á la Constitución, á los Tratados, á las leyes ó á los acuerdos adoptados por los Ayuntamientos, dentro de sus atribuciones propias. Pero se reservará á los Tribunales el conocimiento y la resolución de las reclamaciones que se promuevan con motivo de la suspensión.

ARTÍCULO 97. Ni los Consejeros Provinciales ni ninguna Sección ó Comisión, de su seno ó por ellos designada fuera de él, podrán tener intervención en las operaciones que correspondan al procedimiento electoral para cualquier clase de elecciones.

ARTÍCULO 98. Los Consejeros Provinciales serán personalmente responsables, ante los Tribunales, en la forma que las leyes prescriban, de los actos que ejecuten en el ejercicio de sus funciones.

SECCION TERCERA.—*De los Gobernadores de Provincias y sus atribuciones.*

ARTÍCULO 99. Corresponde á los Gobernadores de Provincia:

1.º Cumplir y hacer cumplir, en los extremos que les conciernan, las leyes, decretos y reglamentos generales de la Nación.

2.º Publicar los acuerdos del Consejo Provincial que tengan fuerza obligatoria, ejecutándolos y haciéndolos ejecutar.

3.º Expedir ordenes y dictar además las instrucciones y reglamentos para la mejor ejecución de los acuerdos del Consejo Provincial, cuando éste no los hubiere hecho.

4.º Convocar al Consejo Provincial á sesiones extraordinarias cuando, á su juicio, fuere necesario; expresándose en la convocatoria el objeto de las sesiones.

5.º Suspender los acuerdos del Consejo Provincial y de los Ayuntamientos, en los casos que determina esta Constitución.

6.º Acordar la suspensión de los Alcaldes en los casos de extralimitación de facultades, violación de la Constitución ó de las leyes, infracción de los acuerdos de los Consejos Provinciales, ó incumplimiento de sus deberes; dando cuenta al Consejo Provincial, en los términos que establezcan las leyes.

7.º Nombrar y remover los empleados de su despacho conforme á lo que establezcan las leyes.

ARTÍCULO 100. El Gobernador será responsable ante el Senado, en los casos que en esta Constitución se señalan, y ante los Tribunales en los demás casos de delito, con arreglo á lo que prescriban las leyes.

ARTÍCULO 101. El Gobernador recibirá del Tesoro provincial una dotación, que podrá ser alterada en todo tiempo; pero no surtirá efecto la alteración sino después que se verifique nueva elección de Gobernador.

ARTÍCULO 102. Por falta, temporal ó definitiva, del Gobernador de la Provincia le sustituirá en el ejercicio de su cargo, el Presidente del Consejo Provincial. Si la falta fuere definitiva durará la sustitución hasta que termine el período para que hubiere sido electo el Gobernador.

TITULO XII.

DEL REGIMEN MUNICIPAL.

SECCION PRIMERA.—*Disposiciones generales.*

ARTÍCULO 103. Los Términos municipales serán regidos por Ayuntamientos, compuestos de Concejales elegidos por sufragio de primer grado, en el número y en la forma que la ley prescriba.

ARTÍCULO 104. En cada Término municipal habrá un Alcalde, elegido por sufragio de primer grado, en la forma que establezca la Ley.

SECCION SEGUNDA.—*De los Ayuntamientos y sus atribuciones.*

ARTÍCULO 105. Corresponde á los Ayuntamientos:

1.º Acordar sobre todos los asuntos que conciernan exclusivamente al término municipal.

2.º Formar sus presupuestos, estableciendo los ingresos necesarios para cubrirlos, sin otra limitación que la de hacerlos compatibles con el sistema tributario del Estado.

3.º Acordar empréstitos; pero votando al mismo tiempo los ingresos permanentes necesarios para el pago de sus intereses y amortización. Para que dichos empréstitos puedan realizarse, habrán de ser aprobados por las dos terceras partes de los electores del Término municipal.

4.º Nombrar y remover los empleados municipales conforme á lo que establezcan las leyes.

ARTÍCULO 106. Los Ayuntamientos no podrán reducir ó suprimir ingresos de carácter permanente sin establecer al mismo tiempo otros que los sustituyan, salvo en el caso de que la reducción ó supresión procedan de reducción ó supresión de gastos permanentes equivalentes.

ARTÍCULO 107. Los acuerdos de los Ayuntamientos serán presentados al Alcalde. Si éste los aprobare, los autorizará con su firma. En otro caso, los devolverá, con sus objeciones, al Ayuntamiento; el cual discutirá de nuevo el asunto. Y si después de la segunda discusión, las dos terceras partes del número total de Concejales votaren en favor del acuerdo, éste será ejecutivo.

Quando el Alcalde, transcurridos diez días desde la presentación de un acuerdo, no lo devolviera, se tendrá por aprobado y será también ejecutivo.

ARTÍCULO 108. Los acuerdos de los Ayuntamientos podrán ser suspendidos por el Alcalde, por el Gobernador de la Provincia ó por el Presidente de la República, cuando, á su juicio, fueren contrarios á la Constitución, á los Tratados, á las leyes ó á los acuerdos adoptados por el Consejo Provincial dentro de sus atribuciones propias. Pero se reservará á los Tribunales el conocimiento y la resolución de las reclamaciones que se promuevan con motivo de la suspensión.

ARTÍCULO 109. Los Concejales serán personalmente responsables, ante los Tribunales de Justicia, en la forma que las leyes prescriban, de los actos que ejecuten en el ejercicio de sus funciones.

#### SECCION TERCERA.—*De los Alcaldes sus atribuciones y deberes.*

ARTÍCULO 110. Corresponde á los Alcaldes:

1.º Publicar los acuerdos de los Ayuntamientos que tengan fuerza obligatoria, ejecutándolos y haciéndolos ejecutar.

2.º Ejercer las funciones activas de la administración municipal, expidiendo, al efecto, órdenes y dictando además instrucciones y reglamentos para la mejor ejecución de los acuerdos del Ayuntamiento, cuando éste no los hubiere hecho.

3.º Nombrar y remover los empleados de su despacho, conforme á lo que establezcan las leyes.

ARTÍCULO 111. El Alcalde será personalmente responsable, ante los Tribunales de Justicia, en la forma que las leyes prescriban, de los actos que ejecuten en el ejercicio de sus funciones.

ARTÍCULO 112. El Alcalde recibirá del Tesoro Municipal una dotación que podrá ser alterada en todo tiempo; pero no surtirá efecto la alteración sino desde que se verifique nueva elección de Alcalde.

ARTÍCULO 113. Por falta, temporal ó definitiva del Alcalde, le sustituirá en el ejercicio de su cargo el Presidente del Ayuntamiento.

Si la falta fuere definitiva durará la sustitución hasta que termine el período para que hubiere sido electo el Alcalde.



## TITULO XIII.

## DE LA HACIENDA NACIONAL.

ARTÍCULO 114. Pertenecen al Estado todos los bienes, existentes en el territorio de la República, que no correspondan á las Provincias ó á los Municipios, ni sean, individual ó colectivamente, de propiedad particular.

## TITULO XIV.

## DE LA REFORMA DE LA CONSTITUCIÓN.

ARTÍCULO 115. La Constitución no podrá reformarse, total ni parcialmente, sino por acuerdo de las dos terceras partes del número total de los miembros de cada Cuerpo Colegislador.

Seis meses después de acordada la reforma, se procederá á convocar una Convención Constituyente, que se limitará á aprobar ó desechar la reforma votada por las Cuerpos Colegisladores; los cuales continuarán en el ejercicio de sus funciones con entera independencia de la Convención.

Los Delegados á dicha Convención serán elegidos por provincias, en la proporción de uno por cada cincuenta mil habitantes, y en la forma que establezcan las leyes.

## DISPOSICIONES TRANSITORIAS.

## PRIMERA.

La República de Cuba no reconoce más deudas y compromisos que los contraídos legítimamente, en beneficio de la Revolución, por los Jefes de Cuerpo del Ejército Libertador, después del 24 de Febrero de 1895, y con anterioridad al 19 de Septiembre del mismo año, fecha en que se promulgó la Constitución de Jimaguayú; y las deudas y compromisos que el Gobierno Revolucionario hubiere contraído posteriormente, por sí ó por sus legítimos representantes en el extranjero. El Congreso calificará dichas deudas y compromisos, y resolverá sobre el pago de los que fueren legítimos.

## SEGUNDA.

Los nacidos en Cuba ó los hijos de naturales de Cuba que, al tiempo de promulgarse esta Constitución, fueren ciudadanos de algún Estado extranjero, no podrán gozar de la nacionalidad cubana sin renunciar, previa y expresamente, la que tuvieren.

## TERCERA.

El tiempo que los extranjeros hubieren servido en las guerras por la independencia de Cuba, se computará como tiempo de naturalización y de residencia para la adquisición del derecho que á los naturalizados reconoce el artículo 49.

## CUARTA.

La base de población que se establece, en relación con las elecciones de Representantes y de Delegados á la Convención Constituyente, en los artículos 48 y 115, podrá modificarse por una ley cuando á juicio del Congreso lo exigiere el aumento de habitantes que resulte de los Censos periódicamente formados.

## QUINTA.

Al constituirse por primera vez el Senado, los Senadores, al efecto de su renovación, se dividirán en dos series. Los comprendidos en la primera, cesarán al fin del cuarto año, y los comprendidos en la segunda, al terminar el octavo; decidiendo la suerte los dos Senadores que correspondan, por cada provincia, á una y otra serie.

La Ley establecerá el procedimiento para la formación de las dos series en que haya de dividirse, á los efectos de su renovación parcial, la Cámara de Representantes.

## SEXTA.

Noventa días después de promulgada la Ley Electoral que habrá de redactar y adoptar la Convención Constituyente, se procederá á elegir los funcionarios creados por la Constitución, para el traspaso del Gobierno de Cuba á los que resulten elegidos, conforme á lo dispuesto en la Orden número 301 del Cuartel General de la División de Cuba, de 25 de Julio del año 1900.

## SEPTIMA.

Todas las leyes, decretos, reglamentos, órdenes y demás disposiciones que estuvieren en vigor al promulgarse esta Constitución, continuarán observándose en cuanto no se opongan á ella, mientras no fueren legalmente derogadas ó modificadas.

## APENDICE.

ARTÍCULO 1.º El Gobierno de Cuba nunca celebrará con ningún Poder ó Poderes extranjeros ningún Tratado ú otro pacto que menoscabe ó tienda á menoscabar la independencia de Cuba, ni en manera alguna autorice ó permita á ningún Poder ó Poderes extranjeros obtener por colonización ó para propósitos navales ó militares ó de otra manera asiento en ó jurisdicción sobre ninguna porción de dicha Isla.

ARTÍCULO 2.º Dicho Gobierno no asumirá ó contraerá ninguna deuda pública para el pago de cuyos intereses y amortización definitiva, después de cubiertos los gastos corrientes del Gobierno, resulten inadecuados los ingresos ordinarios.

ARTÍCULO 3.º El Gobierno de Cuba consiente que los Estados Unidos puedan ejercer el derecho de intervenir para la preservación de la independencia de Cuba, y el sostenimiento de un Gobierno adecuado á la protección de la vida, la propiedad y la libertad individual, y al cumplimiento de las obligaciones, con respecto á Cuba, impuestas á los Estados Unidos por el Tratado de París y que deben ahora ser asumidas y cumplidas por el Gobierno de Cuba.

ARTÍCULO 4.º Todos los actos realizados por los Estados Unidos en Cuba durante su ocupación militar, serán ratificados y tenidos por válidos, y todas los derechos legalmente adquiridos á virtud de aquéllos, serán mantenidos y protegidos.

ARTÍCULO 5.º El Gobierno de Cuba ejecutará y hasta donde fuere necesario ampliará los planes ya proyectados ú otros que mutuamente se convengan, para el saneamiento de las poblaciones de la Isla, con el fin de evitar la recurrencia de enfermedades epidémicas é infecciosas, protegiendo así al pueblo y al comercio de Cuba, lo mismo que al comercio y al pueblo de los puertos del Sur de los Estados Unidos.

ARTÍCULO 6.º La Isla de Pinos queda omitida de los límites de Cuba propuestos por la Constitución, dejándose para un futuro Tratado la fijación de su pertenencia.

ARTÍCULO 7.º Para poner en condiciones á los Estados Unidos de mantener la independencia de Cuba y proteger al pueblo de la misma, así como para su propia defensa, el Gobierno de Cuba venderá ó arrendará á los Estados Unidos las tierras necesarias para carboneras ó estaciones navales en ciertos puntos determinados que se convendrán con el Presidente de los Estados Unidos.

ARTÍCULO 8.º El Gobierno de Cuba insertará las anteriores disposiciones en un Tratado permanente con los Estados Unidos.

LEONARD WOOD,  
*Gobernador Militar de Cuba.*

[Translation.]

*Tuesday, May 20, 1902. Havana Gazettee (official newspaper of the Government). Extra edition. Official section. General administration. Military government of the island of Cuba.*

*No. 181.*

HEADQUARTERS DEPARTMENT OF CUBA,  
*Havana, May 20, 1902.*

The following constitution adopted by the constitutional convention of the people of Cuba on the 21st day of February, 1901, together with and including the appendix thereto adopted by said convention on the 12th day of June, 1901, is hereby promulgated as the constitution of the Republic of Cuba, and declared to be in full force and effect on and after this day.

## CONSTITUTION OF THE REPUBLIC OF CUBA.

We, the delegates of the people of Cuba, having met in Constitutional Convention for the purpose of preparing and adopting the fundamental law of their organization as an independent and sovereign people, establishing a government capable of fulfilling its international obligations, maintaining public peace, insuring liberty, justice, and promoting the general welfare, do hereby agree upon and adopt the following Constitution, invoking the protection of the Almighty.

## TITLE I.

## THE NATION, ITS FORM OF GOVERNMENT, AND ITS TERRITORY.

ARTICLE 1. The people of Cuba are hereby constituted a sovereign and independent State and adopt a republican form of government.

ART. 2. The territory of the Republic is composed of the island of Cuba, as well as the adjacent islands and keys, which, together therewith, were under the sovereignty of Spain until the ratification of the treaty of Paris on December 10, 1898.

ART. 3. The territory of the Republic shall be divided into six provinces, as they exist at present and with the same boundaries, the provincial council of each to determine their respective names.

The provinces may be incorporated with each other or divided into new provinces through actions that may be agreed upon by the respective provincial councils and approved by Congress.

## TITLE II.

## THE CUBAN PEOPLE.

ART. 4. Cuban citizens are native born or naturalized.

ART. 5. Native-born Cubans are:

First. Those born of Cuban parents within or without the territory of the Republic.

Second. Those born within the territory of the Republic of foreign parents, provided that on becoming of age they claim the right of inscription as Cubans in the proper register.

Third. Those born in foreign countries of native-born parents, who have forfeited their Cuban nationality, provided that on becoming of age they claim their inscription as Cubans in the same register.

ART. 6. Naturalized Cubans are:

First. Foreigners who, having served in the Liberating Army, may claim Cuban nationality within six months following the promulgation of this Constitution.

Second. Foreigners established in Cuba prior to January 1st, 1899, who may have retained their residence after said date, provided they claim Cuban nationality within the six months next following the promulgation of this Constitution, or, if minors, within a like period after they shall have attained their majority.

Third. Foreigners who, after five years' residence in the territory of the Republic and not less than two years from the time that they declared their intention of acquiring Cuban citizenship, may obtain their letters of naturalization in conformity with the laws.

Fourth. Spaniards residing in the territory of Cuba on the 11th day of April, 1899, who may not have been registered as such in the proper registers prior to the same month and day of 1900.

Fifth. Africans who may have been slaves in Cuba, and those who were emancipated and comprised in article 13 of the treaty of June 28th, 1835, entered into by Spain and England.

ART. 7. Cuban citizenship is forfeited:

First. By acquiring foreign citizenship.

Second. By accepting employment or honors from another government without permission of the Senate.

Third. By entering the military service of a foreign nation without a like permission.

Fourth. By a naturalized Cuban residing five years continuously in his native country, except by reason of his being in the employ of or fulfilling a commission of the Government of the Republic.

ART. 8. Cuban citizenship may be reacquired as may be provided for by law.

ART. 9. Every Cuban shall—

First. Bear arms in defense of his country in such cases and in the manner determined by the laws.

Second. Contribute to the payment of public expenses in such manner and proportion as the laws may prescribe.

### TITLE III.

#### FOREIGNERS.

ART. 10. Foreigners residing within the territory of the Republic shall have the same rights and obligations as Cubans—

First. As to protection of their persons and properties.

Second. As to the enjoyment of the rights guaranteed by Section I of the following title, excepting those exclusively reserved to citizens.

Third. As to the enjoyment of civil rights under the conditions and limitations prescribed in the law of aliens.

Fourth. As to the obligation of respecting and obeying the laws, decrees, regulations, and all other enactments that may be in force in the Republic.

Fifth. As to submission to the jurisdiction and decisions of the courts of justice and all other authorities of the Republic.

Sixth. As to the obligation of contributing to the public expenses of the State, province, and municipality.

### TITLE IV.

#### RIGHTS GUARANTEED BY THIS CONSTITUTION.

##### SECTION FIRST.—*Individual rights.*

ART. 11. All Cubans have equal rights before the law. The Republic does not recognize any personal privileges or special rights.

ART. 12. No law shall have any retroactive effect, other than penal ones favorable to convicted or indicted persons.

ART. 13. Obligations of a civil nature arising from contracts or other acts or omissions, shall not be annulled or altered by either the legislature or Executive power.

ART. 14. The penalty of death shall in no case be imposed for crimes of a political nature, which shall be defined by law.

ART. 15. No person shall be arrested except in such cases and in the manner prescribed by law.

ART. 16. Every person arrested shall be set at liberty or placed at the disposal of a competent judge or court within twenty-four hours immediately following the arrest.

ART. 17. All persons arrested shall be set at liberty or their imprisonment ordered within seventy-two hours after having been placed at the disposal of the competent judge or court. Within the same time

notice shall be served upon the party interested of any action which may have been taken in the matter.

ART. 18. No person shall be arrested except by warrant of a competent judge or court. The order directing the serving of the warrant of arrest shall be affirmed or reversed, after the accused shall have been heard in his defense, within seventy-two hours next following his imprisonment.

ART. 19. No person shall be indicted or sentenced except by competent judge or court, by virtue of laws in force prior to the commission of the crime, and in such manner as therein prescribed.

ART. 20. Any person arrested or imprisoned without legal formalities, or not in accordance with the provisions of this Constitution and the laws, shall be set at liberty at his own request or that of any citizen. The law will determine the prompt action which shall be taken in the case.

ART. 21. No person whatsoever is bound to give evidence against himself, nor husband or wife against each other, nor relatives within the fourth degree of consanguinity or second of affinity.

ART. 22. All correspondence and other private documents are inviolable, and neither shall be seized or examined except by order of a competent authority and with the formalities prescribed by the laws, and in all cases all points therein not relating to the matter under investigation shall be kept secret.

ART. 23. No person's domicile shall be violated; and therefore no one shall enter that of another at night, except by permission of its occupant, unless it be for the purpose of giving aid and assistance to victims of crime or accident; or in the daytime, except in such cases and manner as prescribed by law.

ART. 24. No person shall be compelled to change his domicile or residence except by virtue of an order issued by a competent authority and in the manner prescribed by law.

ART. 25. Every person may freely, without censorship, express his thoughts either by word of mouth or in writing, through the press, or in any other manner whatsoever, subject to the responsibilities specified by law, whenever thereby attacks are made upon the honor of individuals, upon social order, and upon public peace.

ART. 26. The profession of all religious beliefs, as well as the practice of all forms of worship, are free, without further restriction than that demanded by the respect for Christian morality and public order. The church shall be separated from the state, which shall in no case subsidize any religion.

ART. 27. All persons shall have the right to address petitions to the authorities, to have them duly acted upon, and to be informed of the action taken thereon.

ART. 28. All inhabitants of the Republic have the right to assemble peacefully unarmed, and to associate for all lawful pursuits of life.

ART. 29. All persons shall have the right to enter into and depart from the territory of the Republic, to travel within its boundaries, and to change their residence without requiring any safeguard, passport, or any other similar requisite, except as may be required by the laws governing immigration, and by the authorities, in cases of criminal responsibility, by virtue of the powers vested in them.

ART. 30. No Cuban shall be banished from the territory of the Republic or be prohibited from entering therein.

ART. 31. Primary education is compulsory and shall be gratuitous, as also that of arts and trades. The expenses thereof shall be defrayed by the State during such time as the municipalities and provinces, respectively, may lack sufficient means therefor. Secondary and advanced education will be controlled by the State. However, all persons may, without restriction, study or teach any science, art, or profession, and found and maintain establishments of education and instruction, but it pertains to the State to determine what professions shall require special titles, the conditions necessary for their practice, the necessary requirements to obtain the titles, and the issuing of the same as may be established by law.

ART. 32. No person shall be deprived of his property, except by competent authority for the justified reason of public benefit, and after being duly indemnified for the same. Should the latter requirement not have been complied with, the judges and courts shall give due protection; and in such case they shall restore possession of the property to the person who may have been deprived thereof.

ART. 33. In no case shall the penalty of confiscation of property be imposed.

ART. 34. No person is obliged to pay any tax or impost not legally established and the collection thereof is not carried out in the manner prescribed by the laws.

ART. 35. Every author or inventor shall enjoy the exclusive ownership of his work or invention for the time and in the manner determined by law.

ART. 36. The enumeration of the rights expressly guaranteed by this Constitution does not exclude others that may be based upon the principle of the sovereignty of the people and upon the republican form of Government.

ART. 37. The laws regulating the exercise of the rights which this Constitution guarantees shall become null and void if they diminish, restrict, or change the said rights.

#### SECTION SECOND.—*Right of suffrage.*

ART. 38. All male Cubans over twenty-one years of age have the right of suffrage, with the following exceptions:

First. Inmates of asylums.

Second. Persons mentally incapacitated after having been judicially so declared.

Third. Persons judicially deprived of civil rights on account of crime.

Fourth. Persons in active service belonging to the land or naval forces.

ART. 39. The laws shall establish rules and procedures to guarantee the intervention of the minority in the preparation of the Electoral Census, and in other electoral matters, and their representation in the House of Representatives and in provincial and municipal councils.

#### SECTION THIRD.—*Suspension of constitutional guarantees.*

ART. 40. The guarantees established in articles 15, 16, 17, 19, 22, 23, 24, and 27 of the first section of this title shall not be suspended throughout the entire Republic, or in any part thereof, except tempo-

rarily and when the safety of the state may require it, in cases of invasion of the territory or of serious disturbances that may threaten public peace.

ART. 41. The territory within which the guarantees determined in the preceding article may have been suspended shall be governed during the period of suspension by the Law of Public Order previously enacted, but neither in the said law, or in any other, shall the suspension be ordered of any other guarantees than those already mentioned. Nor shall there be made, during the period of suspension, any declaration of new crimes, nor shall there be imposed other penalties than those established by the law in force at the time the suspension was ordered.

The Executive power is prohibited from banishing or exiling citizens to a greater distance than one hundred and twenty kilometers from their domicile, and from holding them under arrest for more than ten days without turning them over to the judicial authorities, and from rearresting them during the period of the suspension of guarantees. Persons arrested shall not be detained except in special departments of public establishments used for the detention of persons indicted for ordinary offenses.

ART. 42. The suspension of the guarantees specified in article 40 shall only be ordered by means of a law, or, when Congress is not in session, by a decree of the President of the Republic; but the latter shall not order the suspension more than once during the period comprised between two legislatures, nor for an indefinite period of time, nor for more than thirty days, without convening Congress in the same order of suspension. In every case the President shall report to Congress for such action as Congress may deem proper.

#### TITLE V.

##### SOVEREIGNTY AND PUBLIC POWERS.

ART. 43. Sovereignty is vested in the people of Cuba and all public powers are derived therefrom.

#### TITLE VI.

##### LEGISLATIVE POWERS.

##### SECTION FIRST.—*The legislative bodies.*

ART. 44. The legislative power is exercised by two elective bodies, which shall be known as the House of Representatives and the Senate, and which conjointly will be called Congress.

##### SECTION SECOND.—*The Senate; its organization and attributes.*

ART. 45. The Senate shall be composed of four Senators from each Province, elected therefrom for a period of eight years by the provincial councilmen and by a double number of electors, who, together with the provincial councilmen, shall constitute an Electoral Board.

One-half of the electors must be persons who pay the highest amount of taxes and the remainder shall possess the qualifications that may be



determined by law. All of the electors must also be of age and residents of municipal districts of the Province.

The electors shall be chosen by the voters of the Province one hundred days prior to the election of Senators.

One-half of the members of the Senate shall be elected every four years.

ART. 46. To become a Senator it is necessary—

First. To be a native-born Cuban.

Second. To have attained to the age of 35 years.

Third. To be in full possession of all civil and political rights.

ART. 47. The inherent attributes of the Senate are—

First. To try, sitting as a court of justice, the President of the Republic whenever he be accused by the House of Representatives of crimes against the external security of the State, against the free exercise of legislative or judicial powers, or of violation of the Constitution.

Second. To try, sitting as a court of justice, Cabinet ministers whenever they be accused by the House of Representatives of crimes against the external security of the State, against the free exercise of legislative or judicial powers, or of violation of the Constitution, or of any other offense of a political nature specified by law.

Third. To try, sitting as a court of justice, governors of Provinces, whenever they be accused by the provinciales councils or by the President of the Republic of any of the offenses specified in the preceding paragraph. Whenever the Senate sits as a court of justice it shall be presided over by the Chief Justice of the Supreme Court, and it shall not impose upon the accused any other penalty than that of removal from office, or removal from office and disqualification to hold any public office, without detriment to any other penalty which the accused may have incurred which may be imposed by the courts declared to be competent by law.

Fourth. To confirm the appointments made by the President of the Republic of Chief Justice and associate justices of the Supreme Court of Justice; of diplomatic representatives and consular agents of the nation, and of all other public officers whose appointment may require the approval of the Senate in accordance with the law.

Fifth. To authorize Cuban citizens to accept employment or honors from another government or to serve in the army thereof.

Sixth. To ratify the treaties entered into by the President of the Republic with other nations.

### SECTION THIRD.—*The House of Representatives; its organization and attributes.*

ART. 48. The House of Representatives shall be composed of one Representative for each twenty-five thousand inhabitants or fraction thereof over twelve thousand five hundred, elected for the period of four years by direct vote and in the manner provided for by law.

One-half of the members of the House of Representatives shall be elected every two years.

ART. 49. The following qualifications are necessary to be a Representative:

First. To be a native-born or naturalized Cuban citizen who has resided for eight years in the Republic from and after the date of his naturalization.

Second. To have attained to the age of twenty-five years.

Third. To be in full possession of all civil and political rights.

ART. 50. It shall be the duty of the House of Representatives to impeach in the Senate the President of the Republic, and the Cabinet ministers in all cases prescribed in paragraphs first and second of article 47, whenever two-thirds of the total number of Representatives shall so resolve in secret session.

SECTION FOURTH.—*Provisions common to both colegislative bodies.*

ART. 51. The positions of Senator and Representative are incompatible with the holding of any paid position of government appointment, with the exception of that of a professorship in a government institution, obtained by competitive examination prior to election to the first-named positions.

ART. 52. Senators and Representatives shall receive from the State a pecuniary remuneration, alike for both positions, the amount of which may be changed at any time; but the change shall not take effect until after the future election of one-half of the members of the colegislative bodies.

ART. 53. Senators and Representatives shall not be held liable for the votes and opinions given and expressed in the discharge of their duties. Senators and Representatives shall only be arrested or indicted by authority of the body of which they form part, should Congress be in session at the time, except in case of being actually discovered in *flagrante delicto*. In this case, and in case of their being arrested or indicted at the time when Congress is not in session, report shall be made as soon as practicable to the body to which they belong for proper action.

ART. 54. Both Houses of Congress shall open and close their sessions on the same day; they shall be established at the same place, and neither the Senate nor the House of Representatives shall remove to any other place nor adjourn for more than three days, except by joint resolution of both Houses.

Neither shall they open their sessions without two-thirds of the total number of their members being present, nor shall they continue their sessions without an absolute majority of members being present.

ART. 55. Each House shall decide as to the validity of the election of its respective members and as to the resignations presented by them. No Senator or Representative shall be expelled from the House to which he belongs, except by virtue of a case previously decided against him, and by resolution of at least two-thirds of the total number of its members.

ART. 56. Each House shall frame its respective rules and regulations, and elect from among its members its President, vice-presidents, and secretaries. However, the President of the Senate will only discharge the duties of office when the Vice-President of the Republic is absent or is fulfilling the duties of President of the same.

SECTION FIFTH.—*Congress and its powers.*

ART. 57. Congress shall meet by virtue of the inherent rights thereof twice in each year, and shall remain in session during a period of at least forty legal working days during each term.

The first session shall begin on the first Monday in April and the other on the first Monday in November. It will meet in extra sessions in such cases and in such manner as provided for by the rules and regulations of the co-legislative bodies and whenever convened by the President of the Republic in accordance with the provisions of this Constitution.

In such cases it shall only consider the express object or objects for which it meets.

ART. 58. Congress shall meet as a joint body to proclaim, after counting and rectifying the electoral vote, the President and Vice-President of the Republic.

In this case the duties of the President of Congress shall be performed by the President of the Senate, and in his absence by the President of the House of Representatives as vice-president of said Congress.

If upon counting the votes for President it should appear that none of the candidates has an absolute majority of votes, or if there should be a tie, Congress, by a majority of votes, shall elect as President one of the two candidates having obtained the greatest number of votes.

Should two or more candidates be in the same condition, by two or more of them having obtained a like number of votes, Congress shall elect one of their number.

Should the vote of Congress also result in a tie, the vote shall be again taken; and if the result of the second vote be the same, the President shall cast the deciding vote.

The method established in the preceding paragraph shall be employed in the election of Vice-President of the Republic.

The counting of the electoral vote shall take place prior to the expiration of the Presidential term.

ART. 59. Powers of Congress.

First. To prepare the national codes and laws of a general nature; to determine the rules that shall be observed for general, provincial, and municipal elections; to issue orders for the regulation and organization of all matters pertaining to the general administration of public, provincial, and municipal affairs, and issue all other laws and decisions which it may deem proper in connection with all other matters whatsoever of public interest.

Second. To discuss and approve the budgets of Government revenue and expenditure. The said revenue and expenditure, except such as will be mentioned hereinafter, shall be included in annual budgets and shall only remain in force during the year for which they shall have been approved.

The expenses of Congress, those of the administration of justice, those for interest and redemption of loans, and the revenues with which they have to be paid shall be of a permanent nature and shall be included in a fixed budget which, shall remain in force until changed by special laws.

Third. To contract loans; but at the same time it shall be under the obligation of deciding what permanent revenues shall be necessary for the payment of the interest and redemption thereof. All action relating to loans shall require two-thirds of the vote of the total number of the members of each co-legislative body.

Fourth. To coin money, specifying the standard, weight, value, and denomination thereof.

Fifth. To regulate the system of weights and measures.

Sixth. To establish rules for regulating and developing internal and foreign commerce.

Seventh. To regulate the postal service; also railroads, public roads, canals, and harbors, establishing those required by public convenience.

Eighth. To establish the duties, and taxes of a national character necessary for the needs of the Government.

Ninth. To establish rules and procedures for naturalization of citizens.

Tenth. To grant amnesties.

Eleventh. To fix the number of the land and naval forces and to determine the organization thereof.

Twelfth. To declare war and approve treaties of peace made by the President of the Republic.

Thirteenth. To designate, by means of a special law, who shall be President of the Republic in case of the removal from office, death, resignation, or incapacity of the President and Vice-President thereof.

ART. 60. Congress shall not include in the budget laws provisions that may bring about legislative or administrative changes of any other nature; nor shall it reduce or suppress any revenue of a permanent nature without establishing at the same time others in substitution thereof, except in case of reduction or suppression caused by the reduction or suppression of equivalent permanent expenses; nor shall Congress assign to any service that has to be provided for in the annual budget a greater amount than that recommended in the project of the Government; but it may establish new services and reform or give greater scope to those already existing by enactment of special laws.

SECTION SIXTH.—*The initiative, preparation, sanction, and promulgation of the laws.*

ART. 61. The initiative in respect to the laws is in each of the colegislative bodies without distinction.

ART. 62. Every bill which shall have passed both colegislative bodies, and every resolution of the said bodies that may have to be executed by the President of the Republic must be presented to him for approval. If he approve them he will sign them at once, otherwise he shall return them with his objections to the colegislative body in which they shall have originated; which body shall enter the said objections at large upon its minutes and will again discuss the bill or resolution. If, after this second discussion, two-thirds of the total number of members of the colegislative body should vote in favor of the bill or resolution, it shall be sent, together with the objections of the President, to the other body, where it shall also be discussed, and if the latter should approve same by like majority it shall become a law. In all the above cases the vote shall be taken by name.

If within the following ten working days after having received a bill or resolution the President shall not have returned the same, it shall be considered approved and become law.

If within the last ten days of a legislative session there should be presented to the President of the Republic any bill, and he should decide to take advantage of the entire period, in accordance with the preceding paragraph, granted to him by law for the approval thereof, he shall notify Congress on the same day of his determination, in order

that the latter may remain in session, should it so desire, until the expiration of the said period. Should the President not do so, the bill shall be considered approved and become law.

No bill after being defeated in its entirety by either of the legislative bodies shall be again presented for discussion during the same legislative session.

ART 63. Every law shall be promulgated within ten days next following the date of its approval by either the President or Congress, as the case may be, according to the preceding article.

## TITLE VII.

### THE EXECUTIVE POWER.

#### SECTION FIRST.—*The exercise of Executive power.*

ART. 64. The Executive power shall be vested in the President of the Republic.

#### SECOND SECTION.—*The President of the Republic, his powers and duties.*

ART. 65. The President of the Republic must possess the following qualifications:

First. He must be a native-born or naturalized Cuban citizen, and in the latter case must have served in the Cuban Army in its wars of Independence for at least ten years.

Second. He must have attained to the age of forty years.

Third. He must be in full possession of his civil and political rights.

ART. 66. The President of the Republic shall be elected by Presidential electors on one single day and as provided for by law.

The term of office shall be four years, and no person shall be President for three consecutive terms.

ART. 67. The President shall take oath of office, or make affirmation, before the Supreme Court of Justice, upon taking office, faithfully to discharge the duties thereof, to comply with and enforce the Constitution and the laws.

ART. 68. The duties of the President of the Republic are:

First. He shall sanction and promulgate the laws, execute and enforce them; issue, when Congress may not have done so, the regulations for the better enforcement of the laws, and, in addition thereto, the decrees and orders which, for this purpose and for all that which pertains to the control and administration of the nation, he may deem proper, without in any case violating the provisions established in said laws.

Second. He shall convene special sessions of Congress, or of the Senate alone, in the cases specified in this Constitution or when in his judgment it may be necessary.

Third. He shall adjourn Congress whenever therein an agreement in this particular shall not have been arrived at between the legislative bodies.

Fourth. He shall present to Congress at the opening of each legislative session and at such other times as he may deem proper a message relating to the acts of his administration, demonstrating the general

condition of the Republic; and he shall furthermore recommend the adoption of such laws and resolutions as he may deem necessary or advantageous.

Fifth. He shall present to either House of Congress prior to the 15th day of November the project of the annual budgets.

Sixth. He shall furnish Congress with all the information that it may ask for in reference to all matters that do not demand secrecy.

Seventh. He shall direct diplomatic negotiations and make treaties with all nations, but he must submit same for the approval of the Senate, without which they shall not be valid or binding upon the Republic.

Eighth. He shall have the power to freely appoint and remove from office the members of his Cabinet, notifying Congress of such action.

Ninth. He shall appoint, subject to the approval of the Senate, the Chief Justice and justices of the Supreme Court and the diplomatic representatives and consular agents of the Republic, with power to make *pro tempore* appointments of such functionaries in cases of vacancy when the Senate is not in session.

Tenth. He shall appoint such other public officers to all positions specified by law whose appointment does not pertain to any other authority.

Eleventh. He shall have the right to suspend the exercise of the powers enumerated in article 40 of this Constitution in such cases and in the manner stated in articles 41 and 42.

Twelfth. He shall have the right to suspend the resolutions of provincial and municipal councils in such cases and in the manner determined by this Constitution.

Thirteenth. He shall have the right to order the suspension from office of governors of Provinces in case of their exceeding their powers and violating the laws, reporting the fact to the Senate in such manner as may be determined, for proper action.

Fourteenth. He shall have the right to prefer charges against the governors of Provinces in the cases stated in paragraph third of article 47.

Fifteenth. He shall have the right to pardon criminals in accordance with the provisions of the law, except public officers who may have been convicted of crimes committed in the performance of their duties.

Sixteenth. He shall receive the diplomatic representatives and recognize the consular agents of other nations.

Seventeenth. He shall have at his disposal, as Commander in Chief, the land and naval forces of the Republic, take proper measures for the defense of its territory, reporting to Congress the action taken for the purpose, and take proper measures for the maintenance of the public peace whenever there shall arise any danger of invasion or any rebellion seriously threatening public safety. At a time when Congress is not in session the President shall convene same without delay for proper action.

ART. 69. The President shall not leave the territory of the Republic without the authority of Congress.

ART. 70. The President shall be responsible before the Supreme Court of Justice for all ordinary crimes committed by him during his term of office; but he shall not be indicted without previous authority of the Senate.

ART. 71. The President shall receive from the State a salary which may be changed at any time; but the change shall not take effect except within the Presidential periods next following that in which it may have been agreed upon.

#### TITLE VIII.

##### THE VICE-PRESIDENT OF THE REPUBLIC.

ART. 72. There shall be a Vice-President of the Republic, who shall be elected in the same manner and for a like period of time as the President and conjointly with the latter. To become Vice-President, the same qualifications prescribed for President by this Constitution are necessary.

ART. 73. The Vice-President of the Republic shall be President of the Senate, but shall only be entitled to vote in case of a tie.

ART. 74. In case of temporary or permanent absence of the President of the Republic, the Vice-President shall substitute him in the exercise of the Executive power. Should the absence be permanent, the substitution shall continue until the end of the Presidential term.

ART. 75. The Vice-President shall receive a salary from the State which may be changed at any time, but the change shall not take effect except within the Presidential periods next following that in which it may have been agreed upon.

#### TITLE IX.

ART. 76. For the exercise of his powers the President of the Republic shall have such Cabinet Ministers as may be prescribed by law, and Cuban citizens only in the full enjoyment of their civil and political rights shall be appointed.

ART. 77. All decrees, orders, and decisions of the President of the Republic shall bear the *referendum* of the respective Cabinet Minister, without which they shall not be enforceable and shall not be executed.

ART. 78. The Cabinet Ministers shall be personally responsible for all acts bearing their referendum and jointly and severally responsible for those which they may jointly decree or sanction. This responsibility does not exempt the President from the personal and direct responsibility which he may incur.

ART. 79. The Cabinet Ministers shall be impeached by the House of Representatives, in the Senate, in the cases mentioned in paragraph two of article 47.

ART. 80. The Cabinet Ministers shall receive a salary from the State which may be changed at any time, but the change shall not go into effect except within the Presidential periods next following the one in which it may have been agreed upon.

#### TITLE X.

##### SECTION FIRST.—*The exercise of judicial powers.*

ART. 81. The judicial power shall be vested in a Supreme Court of Justice and in such other courts as may be established by law. The said law will regulate their respective organization and powers, the

manner of exercising the same, and the qualifications that must be possessed by the functionaries composing the said courts.

SECTION SECOND.—*Supreme Court of Justice.*

ART. 82. To be Chief Justice or justices of the Supreme Court the following conditions are required:

First. To be a Cuban by birth.

Second. To have attained to the age of thirty-five years.

Third. To be in the full enjoyment of civil and political rights, and not to have been condemned to any *penu afflictiva* for ordinary offenses.

Fourth. To possess, in addition, any of the following qualifications: To have practiced in Cuba, during ten years at least, the profession of law, or discharged for a like period of time judicial duties, or occupied for the same number of years a chair of law in an official educational establishment.

Other persons may be also appointed to the positions of Chief Justice and justices of the Supreme Court, provided they possess the qualifications required by conditions 1, 2, and 3 of this article.

(a) Those persons who may have previously held positions in the judiciary of a similar or next inferior grade for the period that may be provided for by law.

(b) Those persons who, prior to the promulgation of this Constitution, may have been justices of the Supreme Court of the Island of Cuba.

The time during which lawyers shall have exercised judicial functions shall be reckoned as that of the practice of law necessary to qualify them for appointment as justices of the Supreme Court.

ART. 83. In addition to the powers that may have been conferred previously, or may be in future conferred by the laws, the Supreme Court shall be vested with the following:

First. To take cognizance of appeals for the cassation of decisions of inferior courts.

Second. To decide as to the right of jurisdiction of courts immediately below it, or which may not be under the control of a higher court, common to both.

Third. To have cognizance of all cases in litigation to which the State, Provinces, and municipalities are parties inter se.

Fourth. To decide as to the constitutionality of the laws, decrees, and regulations, whenever questions relating thereto shall arise between interested parties.

SECTION THIRD.—*General rules relating to the administration of justice.*

ART. 84. Justice shall be administered gratuitously throughout the territory of the Republic.

ART. 85. The courts of law shall have cognizance of all suits, either civil, criminal, or interadministrative (contencioso-administrativos).

ART. 86. There shall not be created, under any circumstances or title whatsoever, any judicial commission or special courts.

ART. 87. No judicial functionary shall be suspended or discharged from his office or position except by reason of crime or other serious cause, duly proven, and always after he has been heard.



Neither shall he be removed to another position without his consent unless it be for the manifest benefit of the public service.

ART. 88. All judicial functionaries shall be personally responsible, in the manner which the laws may determine, for all violations of the laws committed by them.

ART. 89. The salaries of judicial functionaries shall only be changed at periods of over five years, the said change to be made by a special law. The law shall not assign different salaries for positions the grade, category, and duties of which are equal.

ART. 90. Military and naval courts shall be regulated by a special organic law.

## TITLE XI.

### PROVINCIAL GOVERNMENT.

#### SECTION FIRST.—*General rules.*

ART. 91. Provinces shall comprise the municipal districts within their limits.

ART. 92. Each Province shall have one governor and one provincial council, elected by the direct vote of the people in the manner prescribed by law. The number of councilmen in each Province shall not be less than eight nor more than twenty.

#### SECTION SECOND.—*Provincial councils and their powers.*

ART. 93. Provincial councils shall have the right to—

First. Decide all matters concerning the Province, and which, under the Constitution, treaties, or laws, are not within the general jurisdiction of the State or the special jurisdiction of the ayuntamientos.

Second. Prepare their budgets, providing the necessary incomes to meet them, without any other limitations thereto than that consistent with the tax system of the Government.

Third. Contract loans for public works for the benefit of the Province, but voting at the same time the necessary permanent incomes for the payment of the interest and redemption of said loans.

In order that said loans may be raised, they must be approved by two-thirds of the members of the municipal councils of the Province.

Fourth. To impeach the governor before the Senate, in the cases specified in paragraph 3 of article 47, whenever two-thirds of the total number of provincial councilmen shall decide, in secret session to prefer such charges.

Fifth. To appoint to and remove from office provincial employees, in accordance with provisions which may be established by law.

ART. 94. Provincial councils shall not reduce or suppress revenues of a permanent character without establishing, at the same time, others in substitution thereof, except when the reduction or suppression shall arise from the reduction or suppression of equivalent permanent expenses.

ART. 95. The decisions of the provincial councils shall be presented to the governor of the Province, and should he approve the same he shall affix his signature thereto. Otherwise, he shall return them, with his objections, to the council, which will again discuss the matter.

If, after this second discussion, two-thirds of the total number of councilmen should vote in favor of the measure it shall be executed.

Whenever the governor does not, within ten days after the presentation of the resolution, return the same it will be considered approved, and shall, in a like manner, be executed.

**ART. 96.** All resolutions of the provincial councils may be suspended by the governor of the Province or by the President of the Republic, whenever, in their judgment, they may be contrary to the Constitution, treaties, laws, or resolutions adopted by the municipal councils in the exercise of their inherent rights. But the right of cognizance and decision of all claims arising from the said suspension shall pertain to the courts.

**ART. 97.** Neither the provincial councilmen, nor any section of, or commission from among their members, or of other persons designated by them, shall have any intervention in election matters pertaining to any election whatsoever.

**ART. 98.** The provincial councilmen shall be personally responsible before the courts in the manner prescribed by law for all acts whatsoever which they may perform in the exercise of their duties.

### SECTION THIRD.—*Governors of Provinces and their powers.*

**ART. 99.** The governors of Provinces shall have power to—

First. Comply with and enforce, in all matters within their jurisdiction, the laws, decrees, and general regulations of the nation.

Second. Publish the resolutions of the provincial councils that may be enforceable, executing the same and causing them to be executed.

Third. Issue orders, as well as the necessary instructions and regulations for the better execution of the resolutions of the provincial councils, when the latter should not have done so.

Fourth. Call together the provincial councils in special session, whenever in their judgment it may be necessary, stating in the order convening the session the object thereof.

Fifth. Suspend the resolutions of the provincial and municipal councils in the cases determined by this Constitution.

Sixth. Order the suspension of alcaldes from office in cases where they exceed their powers, violate the Constitution or the laws, infringe the resolutions of provincial councils, or fail to comply with their duties; reporting such action to the provincial council in such manner as may be provided for by law.

Seventh. Appoint and remove the employees of his office in such manner as may be provided for by law.

**ART. 100.** The governor shall be responsible to the Senate, as specified in this Constitution, and to the courts of justice, in all other cases of crime in such manner as may be provided for by law.

**ART. 101.** The governor shall receive from the provincial treasury a salary, which may be changed at any time, but the change shall not take effect until after the election of a new governor.

**ART. 102.** In case of absence, either temporary or permanent, of the governor of the province, he shall be substituted in the discharge of his official duties by the president of the provincial council. Should such absence be permanent such substitution shall continue until the end of the term for which the governor may have been elected.

## TITLE XII.

## MUNICIPAL GOVERNMENT.

SECTION FIRST.—*General rules.*

ART. 103. The municipal district shall be governed by municipal councils composed of the number of councilmen, elected by direct vote, as may be provided for by law.

ART. 104. In each municipal district there shall be an alcalde elected by direct vote, as may be provided for by law.

SECTION SECOND.—*Municipal councils and their powers.*

ART. 105. The municipal councils shall have power to—

First. Decide all matters that relate exclusively to municipal districts.

Second. Prepare the budgets, providing the necessary revenues to meet them, without further limitations than making them compatible with the tax system of the State.

Third. Contract loans, but at the same time voting the permanent revenues necessary for the payment of interest and redemption of same.

In order that said loans may be negotiated, they must be approved by two-thirds of the voters of the municipal districts.

Fourth. To appoint and remove from office municipal employees, as may be provided for by law.

ART. 106. The municipal council shall not reduce or suppress any revenues of a permanent nature without providing others at the same time in substitution thereof, except when the reduction or suppression arises from the reduction or suppression of equivalent permanent expenditures.

ART. 107. The resolutions of municipal councils shall be presented to the alcalde. If the latter should approve them he will attach his signature thereto; otherwise he will return them, with his objections, to the municipal council, where they will again be discussed. And if, upon this second discussion, two-thirds of the total number of councilmen should vote in favor of any resolution it shall be executed.

Whenever the alcalde should not return any resolution within ten days after it has been presented to him, it shall be considered approved and shall also be executed.

ART. 108. The resolutions of municipal councils may be suspended by the alcalde, by the governor of the Province, or by the President of the Republic, whenever, in their judgment, such resolutions are contrary to the Constitution, to treaties, to the laws, or to the resolutions adopted by the provincial council by virtue of its inherent rights, but the courts of justice shall take cognizance of and decide all claims arising therefrom.

ART. 109. Councilmen shall be personally responsible before the courts of justice, as may be provided for by law, for all acts performed by them in the exercise of their duties.

SECTION THIRD.—*Alcaldes; their powers and duties.*

ART. 110. Alcaldes shall be required to—

First. Publish the resolutions of municipal councils that may be binding, execute and cause the same to be executed.

Second. To take charge of the administration of municipal affairs, issuing orders for the purpose, as well as instructions and regulations for the better execution of the resolutions of municipal councils, whenever the latter may fail to do so.

Third. Appoint and remove the employees of his office as may be provided for by law.

ART. 111. The alcalde shall be personally responsible before the courts of justice, as may be prescribed by law, for all acts performed in the discharge of his official duties.

ART. 112. The alcalde shall receive a salary, to be paid by the municipal treasury, which may be changed at any time; but such change shall not take effect until after a new election has been held.

ART. 113. In case of either temporary or permanent absence of the alcalde, his official duties shall be discharged by the president of the municipal council.

Should such absence be permanent, such substitution shall continue for the term for which the alcalde may have been elected.

## TITLE XIII.

## THE NATIONAL TREASURE.

ART. 114. All property existing within the territory of the Republic not belonging to provinces or municipalities or to individuals, separately or collectively, is the property of the State.

## TITLE XIV.

## AMENDMENTS TO THE CONSTITUTION.

ART. 115. The Constitution shall not be amended, in whole or in part, except by a resolution adopted by two-thirds of the total number of members of each colegislative body.

Six months after an amendment has been agreed upon a Constitutional Convention shall be convened, the duties whereof shall be limited to either approving or rejecting the amendment voted by the colegislative bodies, which latter shall continue in the performance of their duties with absolute independence of the convention.

Delegates to the said convention shall be elected by each province in the proportion of one for every fifty thousand inhabitants and in the manner that may be provided by law.

## TRANSITORY RULES.

First. The Republic of Cuba does not recognize any other debts and obligations than those legitimately contracted in behalf of the revolution by the corps commanders of the Liberating Army subsequent to the twenty-fourth day of February, 1895, and prior to the nineteenth day of September of the same year, the date on which the Jimaguayú

Constitution was promulgated, and such debts and obligations as the revolutionary government may have contracted subsequently, either by itself or through its legitimate representatives in foreign countries. Congress shall classify said debts and obligations and decide as to the payment of those that may be legitimate.

Second. Persons born in Cuba, or children of native-born Cubans, who, at the time of the promulgation of this Constitution, might be citizens of any foreign nation shall not enjoy the rights of Cuban nationality without first and expressly renouncing their said foreign citizenship.

Third. The period of time which foreigners may have served in the wars of independence of Cuba shall be computed as within that required for the naturalization and residence necessary to acquire the right granted to naturalized citizens in article 49.

Fourth. The basis of population which is established in relation to the election of Representatives and Delegates to the Constitutional Convention in articles 48 and 115 may be changed by law whenever, in the judgment of Congress, it should become necessary through the increase of the number of inhabitants, as may be shown by the census which may be periodically taken.

Fifth. Senators, at the time of the first organization of the Senate, shall divide into two groups for the purpose of determining their respective tenures of office.

Those comprising the first group shall cease in their duties at the expiration of the fourth year, and those comprising the second group at the expiration of the eighth year. It shall be decided by lot which of the two Senators from each province shall belong to either group.

The law will provide the procedure for the formation of the two groups into which the House of Representatives shall be divided for the purpose of its partial renewal.

Sixth. Ninety days after the promulgation of the electoral law, which shall be prepared and adopted by the Constitutional Convention, the election of public officers provided for by the Constitution shall be proceeded with, for the transfer of the Government of Cuba to those elected, in conformity with the provisions of Order No. 301 of Headquarters Division of Cuba, dated July 25, 1900.

Seventh. All laws, decrees, regulations, orders, and other rulings which may be in force at the time of the promulgation of this Constitution shall continue to be observed, in so far as they do not conflict with the said Constitution, until such time as they may be legally revoked or amended.

#### APPENDIX.

ARTICLE I. The Government of Cuba shall never enter into any treaty or other compact with any foreign power or powers which will impair or tend to impair the independence of Cuba, nor in any way authorize or permit any foreign power or powers to obtain by colonization or for naval or military purposes, or otherwise, lodgment or control over any portion of said island.

ART. II. That said Government shall not assume or contract any public debt to pay the interest upon which, and to make reasonable sinking-fund provision for the ultimate discharge of which the ordinary revenues of the Island of Cuba, after defraying the current expenses of the Government, shall be inadequate.

**ART. III.** That the Government of Cuba consents that the United States may exercise the right to intervene for the preservation of Cuban independence, the maintenance of a government adequate for the protection of life, property, and individual liberty, and for discharging the obligations with respect to Cuba imposed by the Treaty of Paris on the United States, now to be assumed and undertaken by the Government of Cuba.

**ART. IV.** That all the acts of the United States in Cuba during the military occupancy of said island shall be ratified and held as valid, and all rights legally acquired by virtue of said acts shall be maintained and protected.

**ART. V.** That the Government of Cuba will execute, and, as far as necessary, extend the plans already devised, or other plans to be mutually agreed upon, for the sanitation of the cities of the island, to the end that a recurrence of epidemic and infectious diseases may be prevented, thereby assuring protection to the people and commerce of Cuba, as well as to the commerce of the Southern ports of the United States and the people residing therein.

**ART. VI.** The island of Pines shall be omitted from the boundaries of Cuba specified in the Constitution, the title of ownership thereof being left to future adjustment by treaty.

**ART. VII.** To enable the United States to maintain the independence of Cuba, and to protect the people thereof, as well as for its own defence, the Cuban Government will sell or lease to the United States the lands necessary for coaling or naval stations, at certain specified points, to be agreed upon with the President of the United States.

**ART. VIII.** The Government of Cuba will embody the foregoing provisions in a permanent treaty with the United States.

LEONARD WOOD,  
*Military Governor of Cuba.*

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HEADQUARTERS MILITARY GOVERNOR ISLAND OF CUBA,  
*Havana, May 20, 1902.*

*To the President and Congress of the Republic of Cuba.*

**SIRS:** Under the direction of the President of the United States, I now transfer to you as the duly elected representatives of the people of Cuba the government and control of the island, to be held and exercised by you, under the provisions of the constitution of the Republic of Cuba, heretofore adopted by the constitutional convention and this day promulgated; and I hereby declare the occupation of Cuba by the United States and the military government of the island to be ended.

This transfer of government and control is upon the express condition, and the Government of the United States will understand, that by the acceptance thereof you do now, pursuant to the provisions of the said constitution, assume and undertake all and several the obligations assumed by the United States with respect to Cuba by the treaty between the United States of America and her Majesty the Queen Regent of Spain, signed at Paris on the 10th day of December, 1898.

All money obligations of the military government down to this date have been paid as far as practicable. The public civil funds derived from the revenues of Cuba transferred to you this date, amounting to

\$689,191.02 are transferred subject to such claims and obligations properly payable out of the revenues of the island as may remain. The sum of \$100,000 has been reserved from the transfer of funds, to defray anticipated expenses of accounting, reporting and winding up the affairs of the military government, after which any unexpended balance of said sum will be paid into the treasury of the island.

The plans already devised for the sanitation of the cities of the island and to prevent a recurrence of epidemic and infectious diseases, to which the Government of the United States understands that the provision of the constitution contained in the fifth article of the appendix applies, are as follows:

(1) A plan for the sewerage and paving of the city of Havana, for which a contract has been awarded by the municipality of that city to McGivney, Rokeby and Company.

(2) A plan for waterworks to supply the city of Santiago de Cuba, prepared by Captain S. D. Rockenbach, in charge of the district of Santiago, and approved by the military governor, providing for taking water from the wells of San Juan Canyon, and pumping the same to reservoirs located on the heights to the east of the city.

(3) A plan for the sewerage of the city of Santiago de Cuba, a contract for which was awarded to Michael J. Dady and Company, by the military governor of Cuba and now under construction.

(4) The rules and regulations established by the President of the United States on the seventeenth of January, 1899, for the maintenance of quarantine against epidemic diseases at the ports of Habana, Matanzas, Cienfuegos and Santiago de Cuba, and thereafter at the other ports of the island, as extended and amended and made applicable to future conditions, by the order of the military governor dated April twenty-ninth, 1902, published in the Official Gazette of Havana on the twenty-ninth day of April, 1902.

(5) The sanitary rules and regulations in force in the city of Havana.

It is understood by the United States that the present government of the Isle of Pines will continue as a *de facto* government pending the settlement of the title to the said island by treaty pursuant to the Cuban constitution and the act of Congress of the United States approved March 2, 1901.

I am further charged by the President of the United States to deliver to you the letter which I now hand you.

[SEAL.]

LEONARD WOOD,  
*Military Governor of Cuba.*

*Letter from the President of the United States referred to above.*

WHITE HOUSE,  
*Washington, D. C., May 10, 1902.*

*To the President and Congress of the Republic of Cuba.*

SIRS: On the 20th of this month the military governor of Cuba will, by my direction, transfer to you the control and government of the island of Cuba, to be thenceforth exercised under the provisions of the constitution adopted by your constitutional convention as on that day promulgated; and he will thereupon declare the occupation of Cuba by the United States to be at an end.

At the same time I desire to express to you the sincere friendship and good wishes of the United States, and our most earnest hopes for the stability and success of your Government, for the blessings of peace, justice, prosperity and ordered freedom among your people,

and for enduring friendship between the Republic of the United States and the Republic of Cuba.

[SEAL.]

THEODORE ROOSEVELT,  
*President of the United States.*

*Letter from Hon. Estrada Palma in reply to General Wood's letter of May 20, 1902.*

HABANA, 20 de Mayo de 1902.

Honorable General LEONARDO WOOD.

SEÑOR: Como Presidente de la República de Cuba, recibo en este acto el Gobierno de la Isla de Cuba que Vd. me transfiere, en cumplimiento de las órdenes comunicadas á Vd. por el Presidente de los Estados Unidos, y tomo nota de que en este acto cesa la ocupación militar de la Isla.

Al aceptar ese traspaso, declaro que el Gobierno de la República asume, de acuerdo con lo preceptuado en la Constitución, todas y cada una de las obligaciones que se impuso respecto de Cuba el Gobierno de los Estados Unidos por virtud del Tratado firmado en diez de Diciembre de mil ochocientos noventa y ocho entre los Estados Unidos y S. M. la Reina Regente de España.

Quedo enterado de estar pagadas, en cuanto ha sido posible, todas las responsabilidades pecuniarias contraídas por el Gobierno Militar hasta esta fecha: de que se han destinado cien mil pesos para atender en cuanto fuere necesario, á los gastos que pueda ocasionar la liquidación y finiquito de obligaciones contraídas por dicho Gobierno y de haberse transferido al Gobierno de la República la suma de seiscientos ochenta y nueve mil ciento noventa y un pesos y dos centavos, que constituyen el saldo en efectivo existente hoy a favor del Estado.

En el concepto de que les sea aplicable el artículo quinto del Apéndice Constitucional, el Gobierno cuidará de facilitar la ejecución de las obras de saneamiento proyectadas por el Gobierno Militar; procurará, además, en cuanto dependa de el y responda en el orden sanitario á las necesidades de ambos países, la observación del regimen implantado por el Gobierno Militar de Cuba.

Queda entendido que la Isla de Pinos continua de facto bajo la jurisdicción del Gobierno de la República, á reserva de lo que en su oportunidad convengan el Gobierno de los Estados Unidos y el de la República Cubana, de acuerdo con lo preceptuado en la Constitución Cubana y en la Ley votada por el Congreso de los Estados Unidos, aprobada en Marzo dos de mil novecientos uno.

Recibo con verdadera satisfacción la carta que al Congreso de la República de Cuba y á mí, dirige el Presidente Roosevelt por los sentimientos de amistad hacia el pueblo de Cuba, que las inspiran.

Y aprovecho esta ocasion solemne en que resulta cumplida la honrada promesa del Gobierno y pueblo de los Estados Unidos respecto de la Isla de Cuba y consagrada la personalidad de nuestra patria como Nación Soberana, para expresar á Vd. digno representante de aquel gran pueblo, la inmensa gratitud que siente el de Cuba hacia la Nación Americana, hacia su ilustre Presidente Theodore Roosevelt y hacia Vd., por los esfuerzos que para el logro de tan acariciado ideal han realizado.

T. ESTRADA PALMA.



[Translation.]

HAVANA, *May 20, 1902.*

Honorable General LEONARD WOOD.

SIR: As President of the Republic of Cuba, I hereby receive the government of the island of Cuba which you transfer to me in compliance with orders communicated to you by the President of the United States, and take note that by this act the military occupation of Cuba ceases.

Upon accepting this transfer I declare that the Government of the Republic assumes, as provided for in the constitution, each and every one of the obligations concerning Cuba imposed upon the United States by virtue of the treaty entered into on the 10th of December, 1898, between the United States and Her Majesty the Queen Regent of Spain.

I understand that, as far as possible, all pecuniary responsibilities contracted by the military government up to this date have been paid; that \$100,000, or such portion thereof as may be necessary, have been set aside to cover the expenses that may be occasioned by the liquidation and finishing up the obligations contracted by said government; and that there has been transferred to the Government of the Republic the sum of \$689,191.02, which constitutes the cash balance existing to-day in favor of the State.

In the belief that article 5 of the amendment to the constitution is applicable to the matter, the Government will take pains to facilitate the execution of the works of sanitation projected by the military government; furthermore, it will procure, in so far as depends upon the same and corresponds thereto in the sanitary measures for the necessities of both countries, the observance of the system implanted by the military government of Cuba.

It is understood that the Isle of Pines is to continue de facto under the jurisdiction of the Government of the Republic of Cuba, subject to such treaty as may be entered into between the Government of the United States and that of the Cuban Republic, as provided for in the Cuban constitution and in the act passed by the Congress of the United States and approved on the 2d of March, 1901.

I receive with sincere gratification the letters which President Roosevelt addresses to the Congress of the Republic of Cuba and to me, for the sentiments of friendship for the people of Cuba which inspire them.

I take this solemn occasion, which marks the fulfillment of the honored promise of the Government and people of the United States in regard to the island of Cuba, and in which our country is made a ruling nation, to express to you, the worthy representative of that grand people, the immense gratitude which the people of Cuba feel toward the American nation, toward its illustrious President, Theodore Roosevelt, and toward you for the efforts you have put forth for the successful accomplishment of such a precious ideal.

T. ESTRADA PALMA.

HAVANA, *May 20, 1902.*

THEODORE ROOSEVELT,  
*President, Washington:*

The Government of the island having been just transferred, I, as Chief Magistrate of the Republic, faithfully interpreting the sentiments

of the whole people of Cuba, have the honor to send you and the American people testimony of our profound gratitude and the assurance of an enduring friendship, with wishes and prayers to the Almighty for the welfare and prosperity of the United States.

T. ESTRADA PALMA.

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WASHINGTON, *May 20, 1902.*

PRESIDENT OF THE REPUBLIC OF CUBA:

Believe in my heartfelt congratulations upon the inauguration of the Republic which the people of Cuba and the people of the United States have fought and labored together to establish. With confidence in your unselfish patriotism and courage and in the substantial civic virtues of your people, I bid you Godspeed, and on this happy day wish for Cuba for all time liberty and order, peace and prosperity.

ELIHU ROOT,  
*Secretary of War.*

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HAVANA, *May 21, 1902.*

ELIHU ROOT,  
*Secretary of War, Washington:*

I am deeply moved by your heartfelt message of congratulation on the inauguration of the Republic of Cuba, to the birth of which the people and the Government of the United States have contributed with their blood and treasure. Rest assured that the Cuban people can never forget the debt of gratitude they owe to the great Republic with which we will always cultivate the closest relations of friendship and for the prosperity of which we pray to the Almighty.

T. ESTRADA PALMA.

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WASHINGTON, D. C., *June 10, 1902.*

The ADJUTANT-GENERAL U. S. ARMY,  
*Washington, D. C.*

SIR: I have the honor to inform you that the Republic of Cuba was established at 12 o'clock noon, May 20, 1902. The transfer was made upon the lines indicated in the instructions of the honorable, the Secretary of War, and the autograph letter of the President read to President Palma and presented to him. President Palma responded, expressing his sincere appreciation of the work done by the United States in Cuba and the lasting gratitude of himself and the people of Cuba.

The transfer was made in the main reception hall of the palace of the military governor. There were present the President-elect and his cabinet; the military governor and the officers of his staff; civil and military; the Cuban Congress; the judiciary; officers of the British and Italian navies; the captain and staff of the U. S. S. *Brooklyn*; and the consular representatives of foreign countries.

The document of transfer was read at exactly 12 o'clock. President Palma at once read his reply. During the reading of the document of transfer and the reply of President Palma a salute of 45 guns to our flag was being fired. Upon the conclusion of this salute the troops of

the Seventh U. S. Cavalry, which had been formed in the Plaza de Armas in front of the palace, presented arms, the band played the national air, and the American flag was lowered by a special detail designated for this purpose and received by an officer of my staff. The Cuban flag was then hoisted and saluted with a national salute of 21 guns both by the fortress of Cabana and by the U. S. S. *Brooklyn*. The Cuban national air was played and our troops saluted the flag. This ceremony completed, the troops immediately embarked, and were not allowed, either officers or men, to set foot again on shore.

I left the palace at 25 minutes past 12 o'clock, accompanied by the officers of my personal and department staff. We were accompanied to the capitania del puerto by President Palma with his cabinet, the Cuban Congress and all others who had been present at the ceremonies. President Palma bade us farewell at the wharf after again expressing his most sincere and lasting good-will and appreciation.

Accompanied by my personal staff I immediately embarked upon the U. S. S. *Brooklyn*. The officers of the department staff embarked on the S. S. *Morro Castle*, which sailed at a quarter past 3. The U. S. S. *Brooklyn* sailed at about 3.45.

There was immense interest and enthusiasm displayed in the transfer, and it would have been impossible for any people to have shown more friendship and cordiality to the representatives of another nation than was shown by the people of Havana of all classes to the representatives of the late military government of the United States in Cuba. It is safe to say that at least 100,000, probably 150,000, people were assembled along the water front within the harbor limits at the punta and along the sea front to see the troops off. Both the S. S. *Morro Castle* and the U. S. S. *Brooklyn* were escorted to sea by a large number of tugs and launches packed with people.

I proceeded on the U. S. S. *Brooklyn* directly to the mouth of the St. Johns River, below Jacksonville, and there transferred to the U. S. A. T. *Kanawha* with the officers of my personal staff, Captain H. L. Scott, adjutant-general, and Lieutenants M. E. Hanna, Frank R. McCoy, and Edward Carpenter, aids-de-camp.

From Jacksonville I proceeded directly to Washington, stopping at Charleston to coal; a few hours at Norfolk for supplies, and at Fortress Monroe to visit the works, arriving at Washington Wednesday morning, May 28.

Very respectfully,

LEONARD WOOD,  
*Brigadier-General, U. S. Army.*

## APPENDIX B.

### CONSOLIDATED STATEMENT OF THE FISCAL AFFAIRS OF CUBA DURING AMERICAN OCCUPATION FROM JULY 18, 1898, TO MAY 19, 1902.

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Customs revenues by ports.  
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*Summary, by ports, of customs revenues collected in Cuba during American administration, July 18, 1898, to May 19, 1902, as certified by the auditor for Cuba.*

	July 18, 1898, to June 30, 1899.	Fiscal year 1900.	Fiscal year 1901.	July 1, 1901, to May 19, 1902.	Total during American ad- ministration.
Baracoa .....	\$19,184.93	\$33,597.55	\$24,274.45	\$19,290.76	\$96,347.69
Batabano .....	1,481.97	2,784.89	2,445.24	1,421.63	8,133.73
Cienfuegos .....	554,111.07	1,126,268.30	1,287,614.93	1,135,058.61	4,103,052.91
Cardenas .....	144,045.11	312,409.70	281,477.24	301,455.87	1,039,387.92
Caibarien .....	65,165.04	191,972.69	227,526.53	182,593.64	667,257.90
Guantanamo .....	49,111.76	123,536.55	146,959.38	109,145.57	428,753.26
Gibara .....	64,915.57	184,946.45	311,275.70	256,997.02	818,134.74
Habana .....	5,102,762.85	12,062,124.89	11,516,922.09	9,398,147.33	38,079,957.16
Jucaro .....			5,993.51	71,126.96	77,120.47
Manzanillo .....	65,873.87	173,361.88	231,365.75	228,382.34	698,983.84
Matanzas .....	197,755.30	462,800.40	469,869.48	434,599.75	1,565,024.93
Nuevitas .....	119,347.53	183,128.31	185,794.86	192,735.69	681,006.39
Sagua la Grande .....	74,703.23	182,278.15	189,527.24	118,527.12	565,035.74
Santa Cruz .....	746.30	2,963.66	5,969.56	4,731.28	14,410.80
Santiago .....	754,452.76	995,532.48	1,031,875.93	921,362.30	3,703,223.47
Trinidad .....	10,797.11	27,063.43	16,471.85	17,041.73	70,374.12
Tunas de Zaza .....	4,006.20	3,266.57	16,163.17	10,299.55	33,735.49
<b>Total .....</b>	<b>7,228,460.60</b>	<b>16,068,035.90</b>	<b>15,950,526.91</b>	<b>13,402,917.15</b>	<b>52,649,940.56</b>

Summary, by items, of customs revenues collected in Cuba during American administration, July 18, 1898, to May 19, 1902, as certified by the auditor for Cuba.

	July 18, 1898, to June 30, 1899.	Fiscal year 1900.	Fiscal year 1901.	July 1, 1901, to May 19, 1902.	Total during American ad- ministration.
Import duties .....	\$6,473,668.28	\$14,592,683.04	\$14,187,131.41	\$12,623,603.55	\$47,877,086.28
Export duties .....	406,408.10	719,801.43	<sup>a</sup> 988,928.39		2,115,137.92
Tonnage tax .....	227,691.41	843,007.51	852,251.37	336,721.35	1,259,671.64
Harbor improvement .....	79,230.86	265,220.23	256,362.49	255,680.49	856,494.07
Fines, seizures, etc. ....	2,317.76	14,963.46	24,421.44	40,429.44	82,132.10
Capitation tax .....	17,983.65	25,610.58	24,218.14	18,880.94	86,693.31
Storage and cartage .....	3,766.93	24,087.06	22,417.55	16,176.28	66,447.82
Consular fees .....	222.52	2,134.50	1,956.50	1,660.72	5,974.24
Overtime work .....	4,357.74	16,485.66	29,663.66	26,161.93	76,668.99
Cattle inspection .....	10,908.28	42,585.48	84,673.73	31,383.73	119,501.22
Live-stock tax .....		40.67	297.96	22.50	361.13
Certificate fees .....		212.00	1,438.00	1,140.10	2,790.10
Deposits for badges .....		131.65	190.14	65.69	316.10
Liquor tax .....	1,525.89				1,525.89
Pilotage .....			608.72		608.72
Private dock inspec- tion .....			825.00	150.00	975.00
Rent .....	89.00	97.73	220.00	80.00	486.73
Seized and unclaimed goods, useless mate- rial .....	64.93	10,442.87	14,127.34	33,435.03	58,070.17
Sale of fishery plots .....		1,291.92			1,291.92
Sanitary tax .....	225.25	170.00			395.25
Ship measuring .....		196.66	60.51		257.17
Signal service .....			277.00	1,060.00	1,337.00
Translation and inter- pretation .....		4,778.63	6,319.00	5,110.50	16,208.13
Tramway charges .....			690.49	3,643.22	4,333.71
Wharfage .....		4,144.82	2,906.12	7,378.54	14,429.48
Wreckage .....			541.95	150.00	691.95
Repairs .....				5.00	5.00
Clothing .....				37.65	37.65
Revenue-Cutter Serv- ice .....				11.87	11.87
<b>Total .....</b>	<b>7,228,460.60</b>	<b>16,068,035.90</b>	<b>15,950,526.91</b>	<b>13,402,917.15</b>	<b>52,649,940.56</b>

<sup>a</sup> All export duties were abolished Apr. 1, 1901.

<sup>b</sup> Deduction for revenues refunded.

Summary of postal revenues collected in Cuba during American administration from January 1, 1899, the date of the organization of the postal department, to May 19, 1902, as certified by the auditor for Cuba.

Receipts from sales of postage stamps, stamped paper, box rent, etc.:

January 1, 1899, to June 30, 1899 .....	\$148,692.70
Fiscal year 1900 .....	237,692.70
Fiscal year 1901 .....	354,806.59
July 1, 1901, to May 19, 1902 .....	324,226.74

Total .....

1,065,418.73

Fees on money orders:

January 1, 1899, to June 30, 1899 .....	2,892.70
Fiscal year 1900 .....	20,455.33
Fiscal year 1901 .....	13,144.01
July 1, 1901, to May 19, 1902 .....	11,729.87

Total .....

48,221.91

*Summary, by fiscal zones, of internal revenues collected in Cuba during American administration from January 1, 1899, the beginning of the administration of the internal affairs under direction of the American authorities, to May 19, 1902, as certified by the auditor for Cuba.*

	Jan. 1, 1899, to June 30, 1899.	Fiscal year 1900.	Fiscal year 1901.	July 1, 1901, to May 19, 1902.	Total during American administration.
Habana .....	\$247,510.94	\$547,887.63	\$447,211.89	\$429,998.68	\$1,672,608.54
Pinar del Rio.....	8,332.89	24,946.66	15,583.84	18,458.51	67,321.90
Guanajay .....	.....	.....	9,060.56	10,282.01	19,342.57
Matanzas .....	38,688.11	136,113.06	27,268.94	29,361.54	231,431.64
Cardenas .....	.....	.....	27,846.10	30,645.27	58,491.37
Santa Clara .....	16,889.97	99,144.53	34,911.56	31,010.89	181,956.95
Cienfuegos .....	.....	.....	29,020.03	42,564.40	71,584.43
Puerto Principe .....	30,324.89	26,546.26	20,628.61	30,911.29	108,411.05
Holguin .....	.....	.....	11,688.11	16,977.68	28,665.79
Manzanillo .....	.....	.....	9,266.63	9,551.00	18,817.63
Santiago .....	5,686.09	50,146.16	39,026.78	38,820.50	133,677.53
Total .....	.....	.....	671,512.55	.....	2,592,309.40
Less amount refunded .....	.....	.....	12,926.63	.....	12,926.63
Net total .....	347,431.89	884,783.29	658,585.92	688,581.67	2,579,382.77

*Summary, by items, of internal revenues collected in Cuba during American administration, from January 1, 1899, the beginning of the administration of the internal affairs under direction of the American authorities, to May 19, 1902, as certified by the auditor for Cuba.*

	Jan. 1, 1899, to June 30, 1899.	Fiscal year 1900.	Fiscal year 1901.	July 1, 1901, to May 19, 1902.	Total during American administration.
Conveyance and inheritance tax .....	\$163,892.80	\$386,047.77	\$374,714.25	\$357,325.40	\$1,281,980.22
Industrial and commercial tax .....	13,984.75	96,843.51	126,162.17	132,639.07	369,629.50
10 and 3 per cent on passenger and freight rates .....	128,419.19	303,064.12	.....	.....	431,483.31
Forest proceeds .....	120.00	739.40	1,055.40	297.50	2,212.80
Redemption of rent charges .....	75.77	1,606.94	6,679.06	11,313.61	19,674.37
Interest of rent charges .....	5,078.55	20,977.75	26,184.92	34,497.00	86,738.22
Interest of liabilities .....	251.03	1,511.90	6,062.66	9,201.83	17,027.42
Rents of state properties .....	3,209.13	5,138.54	6,001.46	7,417.71	21,766.84
Sale of state lands .....	.....	2,070.81	8,584.74	19,079.96	29,735.51
Sale of useless material .....	637.93	1,355.92	626.38	1,474.68	4,094.91
Rental proceeds .....	25,921.75	65,427.63	115,441.52	115,334.91	322,125.81
Liquor tax .....	5,840.99	.....	.....	.....	5,840.99
Total .....	.....	.....	671,512.55	.....	2,592,309.40
Less amount refunded .....	.....	.....	12,926.63	.....	12,926.63
Net total .....	347,431.89	884,783.29	658,585.92	688,581.67	2,579,382.77

<sup>a</sup>This tax was abolished July 1, 1900, by headquarters division of Cuba, Order No. 258.

*Summary of miscellaneous revenues collected in Cuba during American administration, July 13, 1898, to May 19, 1902, as certified by the auditor for Cuba.*

REVENUES FROM JULY 13, 1898, TO JUNE 30, 1899.

Municipal and miscellaneous revenues collected at Santiago in 1898 .....	\$164,485.52
Proceeds from telegraph-line receipts .....	17,370.29
Proceeds from earnings of Jucaro and San Fernando Railroad .....	11,437.80
Proceeds from tax collections .....	1,971.33
Proceeds from municipal tax .....	307.88
Proceeds from customs .....	37.57
Proceeds from cleaning cesspools .....	172.00
Proceeds from dredging work .....	1,398.14
Proceeds from rent of pile driver .....	200.00
Proceeds from rent of dredge, Porto Rico .....	60.00
Proceeds from work done at 137 Obispo street .....	4.87
Proceeds from sale of hardware .....	672.57

Proceeds from sale of scrap iron .....	\$24. 37
Contributions to the Jucaro and San Fernando Railroad by Mr. Carter.	1, 000. 00
Amounts taken up by collectors of internal revenue for overpayments and credited to miscellaneous revenues .....	7, 402. 98
Miscellaneous receipts for which auditor is unable to furnish itemized certificates .....	146. 50
Amount gained in exchange .....	17, 607. 12
Residue sum unexpended by late junta de obras del puerto .....	1, 323. 65
Discount payment, employees of junta de obras del puerto .....	292. 57
Lunatic asylum .....	27. 78
Cash found in Habana custom-house vault .....	1, 614. 32
Cash found in Santiago custom-house vault .....	6, 788. 40
<b>Total .....</b>	<b>234, 345. 66</b>

## REVENUES FOR THE FISCAL YEAR ENDED JUNE 30, 1900.

Proceeds from telegraph-line receipts .....	\$56, 950. 83
Proceeds from earnings of Jucaro and San Fernando Railroad .....	29, 388. 39
Proceeds from sale of ice .....	10, 924. 50
Proceeds from cleaning cesspools .....	3, 397. 84
Proceeds from premium on sale of Spanish money and billetes .....	4, 733. 84
Proceeds from sale of old iron .....	1, 971. 76
Proceeds from sale of lumber .....	198. 50
Proceeds from sale of flour .....	437. 00
Proceeds from sale of clothing .....	3, 903. 84
Proceeds from sale of horses and mules .....	450. 00
Proceeds from sale of old drain material .....	11. 40
Proceeds from sale of garbage cans .....	83. 20
Proceeds from sale of condemned insular property .....	21. 00
Proceeds from sale of street sweepings and manure .....	602. 27
Proceeds from sale of old vehicles .....	90. 90
Proceeds from sale of miscellaneous articles .....	117. 32
Proceeds from rental of canteen .....	182. 75
Proceeds from rent of pile driver .....	47. 50
Proceeds from rent of steam roller .....	26. 20
Proceeds from miscellaneous rents .....	607. 99
Proceeds from subrental of telephone .....	50. 00
Guaranty for dredging .....	31, 144. 23
Harbor improvements .....	200. 00
Damage to wharves .....	50. 70
Damage to vehicles .....	4. 40
Received from administrator of Marianao Railroad .....	351. 49
Repairs to slaughterhouse .....	8, 894. 80
Repairs to Las Animas hospital .....	380. 00
File for architect, sanitary office .....	8. 00
File cabinet for sanitary office .....	21. 25
Asphalt pavements .....	1, 621. 00
Excavation work .....	322. 00
Board of patients and hospital treatment .....	679. 80
Subscription .....	12. 00
Repairs to buildings .....	2, 360. 63
Deposits on account of borings .....	100. 00
Deposits on account of work for the municipality of Habana .....	4, 771. 19
Care of prisoners .....	40. 62
Checks lost and uniforms unaccounted for .....	697. 33
Disinfecting warehouse .....	263. 70
Refunds of overpayment of duties, etc .....	370. 28
Receipts of funds not classified .....	8, 817. 70
<b>Total .....</b>	<b>175, 308. 15</b>

## REVENUES FOR THE FISCAL YEAR ENDED JUNE 30, 1901.

Proceeds from telegraph-line receipts .....	\$75, 805. 06
Proceeds from earnings of the Jucaro and San Fernando Railroad .....	13, 155. 02
Proceeds from sale of ice .....	13, 476. 71
Proceeds from auction sales .....	2. 00

Proceeds from board and treatment of patients .....	\$541.00
Proceeds from cleaning cesspools .....	2,013.50
Proceeds from dredging and floating dry dock at Regla .....	25,077.60
Proceeds from dredging .....	1,650.00
Proceeds from earnings of S. S. <i>Valeda</i> .....	600.00
Proceeds from installing meters and water service .....	11,497.32
Proceeds from fees for examining steam engine .....	115.00
Proceeds from fees for registration of trade-marks .....	441.50
Proceeds from maintenance of immigrants .....	4,665.58
Proceeds from miscellaneous rents .....	1,364.82
Proceeds from rent of pile driver .....	195.00
Proceeds from repairs, extension, and improvement of streets and roads .....	1,700.00
Proceeds from repairs to launches, tugs, scows, and dredges .....	4,986.92
Proceeds from repairs to batteries and arsenals .....	83.15
Proceeds from sale of condemned and unserviceable material .....	2,499.97
Proceeds from sale of sand and firewood .....	238.80
Proceeds from sale of clothing to employees .....	365.85
Proceeds from sale of rags .....	1,231.29
Proceeds from sale of insular property .....	209.00
Proceeds from sale of animals .....	2,151.75
Proceeds from sale of rations .....	171.25
Proceeds from sale of street sweepings .....	1,191.19
Proceeds from cleaning premises and sewers .....	5,982.42
Proceeds from miscellaneous sales .....	245.02
Proceeds from improvements of municipal buildings and property .....	2,216.73
Fines, penalties, and forfeitures .....	1,419.12
Deposits on contracts .....	563.91
Salvage and storage .....	17.00
Receipts from issuing penalty envelopes .....	1,408.40
Sale of foreign gold and currency .....	4,536.52
Cash found in safes .....	49.13
Repayments of services and labor furnished .....	2,135.70
Total .....	184,003.23

## REVENUES FROM JULY 1, 1901, TO MAY 19, 1902.

Proceeds from telegraph-line receipts .....	\$88,192.58
Proceeds from sale of ice .....	13,854.94
Proceeds from auction sales .....	2,744.26
Proceeds from board and treatment of patients .....	1,706.67
Proceeds from cleaning cesspools .....	5,824.80
Proceeds from damage to wharves and sea walls .....	91.34
Proceeds from damage to Department property .....	4.00
Proceeds from dredging Matadero Canal .....	700.00
Proceeds from earnings S. S. <i>Valeda</i> .....	1,626.87
Proceeds from establishing water supply .....	1,155.14
Proceeds from fees and licenses .....	1,681.58
Proceeds from maintenance of immigrants .....	10,808.38
Proceeds from miscellaneous rents .....	9,284.51
Proceeds from printing office .....	252.00
Proceeds from repairs to harbor buoys .....	285.76
Proceeds from rent of steam roller and pile driver .....	753.00
Proceeds from repairing mowing machine .....	6.50
Proceeds from repairs, extension, and improvement of streets .....	28,398.95
Proceeds from repairs to launches, tugs, scows, and dredges .....	8,570.67
Proceeds from repairs to batteries and arsenals .....	338.91
Proceeds from repairs and dredging wharves .....	1,739.46
Proceeds from sale of ordnance stores .....	13,566.16
Proceeds from sale of condemned and unserviceable material .....	9,008.17
Proceeds from sale of coal and sand .....	336.28
Proceeds from sale of clothing to employees .....	30.50
Proceeds from sale of rags and paper .....	7,539.78
Proceeds from sale of insular property .....	18,407.54
Proceeds from sale of charts .....	10.55
Proceeds from sale of horses and mules .....	2,514.80
Proceeds from sale of produce and rations .....	7,984.86



Contributions to schools at Santiago .....	\$20, 130. 81
Conveyance and inheritance tax .....	54. 44
Fees for examining locomotive engineers .....	1, 718. 72
Fines, penalties, and forfeitures .....	3, 205. 02
Judicial fines .....	147. 99
Expense of erecting and removing reviewing stand .....	151. 72
Received from National Conference of Charities .....	163. 20
Receipts from issuing penalty envelopes .....	869. 89
Tunas and Sancti Spiritus Railroad .....	213. 00
Loss on sales of foreign money .....	a 3, 553. 96
<b>Total</b> .....	<b>260, 519. 79</b>

## EXPENDITURES FROM JULY 18, 1898, TO JUNE 30, 1899.

Barracks and quarters .....	\$447, 415. 90
Sanitation .....	1, 066, 075. 28
Rural guard and administration .....	408, 079. 34
Public works, ports, and harbors .....	170, 365. 41
Charities and hospitals .....	176, 256. 79
Miscellaneous .....	625, 700. 22
Aid to destitute .....	131, 705. 36
Quarantine .....	22, 707. 70
Jucaro and San Fernando Railroad .....	10, 908. 50
Expenditures by collectors of customs .....	130, 435. 26
Other customs expenditures .....	242, 297. 31
State and Government .....	188, 628. 78
Justice and public instruction .....	266, 498. 96
Finance .....	147, 557. 37
Agriculture, industry, commerce, and public works .....	101, 354. 62
Municipalities .....	1, 358, 162. 29
Extraordinary payments ordered by the general commanding at San- tiago in 1898 .....	64, 346. 71
Postal expenditures .....	223, 492. 75
Loss in exchange .....	2, 630. 18
Revenues refunded .....	3, 725. 16
<b>Total</b> .....	<b>5, 788, 343. 89</b>

## EXPENDITURES DURING FISCAL YEAR 1900.

Barracks and quarters .....	\$1, 349, 671. 96
Sanitation .....	3, 480, 277. 48
Rural guard and administration .....	1, 702, 450. 33
Public works, ports, and harbors .....	881, 963. 38
Charities and hospitals .....	814, 132. 26
Miscellaneous .....	208, 735. 74
Aid to destitute .....	92, 623. 17
Quarantine .....	224, 332. 91
Jucaro and San Fernando Railroad .....	27, 457. 00
Expenditures by collectors of customs .....	689, 059. 62
Other customs expenditures .....	152, 316. 97
Treasurer's office .....	113, 632. 67
Auditor's office .....	77, 200. 10
Headquarters division of Cuba .....	80, 617. 78
State and Government .....	924, 958. 41
Justice and public instruction .....	1, 308, 090. 07
Finance .....	244, 050. 74
Agriculture, industry, commerce, and public works .....	511, 177. 79
Municipalities .....	1, 960, 059. 90
Census .....	299, 239. 70
Postal expenditures .....	494, 539. 09
Paris exposition .....	24, 798. 40
<b>Total</b> .....	<b>15, 661, 385. 47</b>

a Deduction.

EXPENDITURES DURING FISCAL YEAR 1901.

<b>State and Government:</b>	
Central office .....	\$236, 471. 12
Civil government .....	160, 845. 47
Rural Guard .....	124, 433. 91
Census .....	80, 286. 24
Hospitals and charities .....	512, 839. 71
Jails .....	389, 088. 08
Public buildings .....	210, 943. 69
Elections .....	42, 256. 46
<b>Justice:</b>	
Central office .....	70, 201. 93
Supreme court and audiencia .....	431, 989. 36
Courts of province .....	188, 820. 31
Lower courts .....	166, 022. 54
Public buildings .....	15, 583. 72
<b>Public instruction:</b>	
Central office .....	137, 555. 77
Universities and State schools .....	558, 379. 31
Public buildings .....	38, 400. 70
<b>Finance:</b>	
Central office .....	103, 104. 60
Offices of the zones .....	161, 272. 92
Expenditures by collectors of customs .....	714, 326. 60
Other customs-service expenditures .....	196, 667. 06
Postal service .....	524, 198. 85
Auditor's office .....	107, 823. 38
Treasurer's office .....	276, 855. 40
Quarantine .....	255, 039. 20
Public buildings .....	768. 03
Tariff commission .....	7, 841. 23
Aid to destitute .....	70. 45
Miscellaneous .....	512. 91
<b>Agriculture, industry, and commerce:</b>	
Central office .....	64, 417. 59
Province .....	48, 326. 21
Paris and Pan-American expositions .....	13, 470. 93
Purchase of brood horses and cattle .....	100, 344. 04
<b>Public works:</b>	
Central office .....	60, 113. 68
Province .....	45, 694. 46
Expenditures by Captains of ports .....	75, 943. 96
Public works .....	383, 710. 77
Construction and repairs .....	1, 010, 046. 67
Light-houses .....	141, 362. 59
Public buildings .....	1, 070. 52
Jucaro and San Fernando Railroad .....	18, 973. 01
<b>Municipalities:</b>	
Administration .....	26, 040. 78
Instruction .....	3, 413, 184. 53
Sanitation .....	2, 856, 912. 48
Police .....	765, 407. 50
Hospitals and asylums .....	1, 042, 536. 71
Jails .....	1, 266. 46
Public buildings .....	19, 282. 60
Elections .....	12, 722. 03
Miscellaneous .....	99, 122. 75
<b>Military department:</b>	
Barracks and quarters .....	455, 652. 60
Administration .....	193, 530. 80
Administration and Rural Guard .....	1, 071, 373. 22
Miscellaneous .....	12, 462. 67
<b>Total</b> .....	<b>17, 645, 568. 51</b>

## REPORT OF THE SECRETARY OF WAR.

EXPENDITURES FROM JULY 1, 1901, TO MAY 19, 1902.

<b>State and Government:</b>	
Central office .....	\$159,041.78
Hospitals and charities .....	580,369.64
Jails .....	439,137.41
Public buildings .....	1,063,747.72
Secret service and secret police .....	547.77
Civil government .....	121,480.21
Census .....	867.50
Elections .....	118,325.67
Rural guard .....	863,831.00
Artillery corps .....	25,061.44
<b>Justice:</b>	
Central office .....	58,012.96
Supreme court .....	137,489.19
Courts of province .....	675,681.79
Public buildings .....	1,125.58
<b>Public instruction:</b>	
Central office .....	258,647.90
Universities and State schools .....	510,029.23
Public buildings .....	112,050.76
<b>Finance:</b>	
Central office .....	174,250.75
Province .....	123,180.34
Postal service .....	383,531.34
Expenditures by collectors of customs .....	642,522.87
Other customs expenditures .....	144,700.37
Quarantine .....	191,945.00
Public buildings .....	26,962.38
Tariff commission .....	1,067.50
Consular funds .....	17.94
Treasurer's office .....	191,212.03
Auditor's office .....	127,734.94
<b>Agriculture, industry, and commerce:</b>	
Central office .....	124,881.67
Province .....	36,743.95
Expositions .....	92,016.19
Brood horses and cattle .....	4,167.89
<b>Public works:</b>	
Central office .....	63,171.80
Province .....	185,353.50
Public works .....	2,421.36
Construction and repairs .....	1,311,596.70
Light-houses .....	160,747.20
Ports .....	2,839.41
Expenditures by captains of ports .....	62,512.08
Miscellaneous .....	3.00
<b>Municipalities:</b>	
Administration .....	61,990.50
Police .....	99,573.40
Instruction .....	2,760,422.85
Sanitation .....	2,302,992.96
Hospitals and charities .....	774,452.51
Elections .....	33,136.39
Public buildings .....	29,229.97
Miscellaneous .....	11,182.95
<b>Military department:</b>	
Barracks and quarters .....	272,743.32
Administration .....	782,389.86
Administration and rural guard .....	1,476.90
Miscellaneous .....	1,114.04
<b>Total .....</b>	<b>16,309,733.41</b>

EXPENDITURES DURING ENTIRE PERIOD OF AMERICAN ADMINISTRATION.

State and Government.....	\$2,780,781.16
Justice and public instruction.....	11,108,187.46
Finance.....	990,586.71
Customs service.....	2,912,326.06
Postal service.....	1,625,762.03
Quarantine.....	694,024.81
Census.....	380,393.44
Auditor.....	312,758.42
Treasurer.....	581,700.10
Rural guard and administration.....	5,253,244.58
Agriculture, industry, and commerce <sup>a</sup> .....	1,121,699.28
Public buildings, works, ports, and harbors.....	5,833,607.90
Jucaro and San Fernando Railroad.....	57,338.51
Barracks and quarters.....	2,525,483.78
Charities and hospitals.....	4,124,986.60
Sanitation.....	9,706,258.20
Municipalities (other than charities and hospitals and sanitation).....	4,477,177.52
Miscellaneous.....	918,714.72
<b>Total.....</b>	<b>55,405,031.28</b>

*Summary of revenues and expenditures in Cuba during American administration, from July 18, 1898, to May 19, 1902, as certified by the Auditor for Cuba.*

REVENUES.

July 18, 1898, to June 30, 1899:	
Customs.....	\$7,228,460.60
Postal.....	151,585.40
Internal.....	347,431.89
Miscellaneous.....	234,345.66
	\$7,961,823.55
Fiscal year 1900:	
Customs.....	16,068,035.90
Postal.....	258,148.03
Internal.....	884,783.29
Miscellaneous.....	175,308.15
	17,386,275.37
Fiscal year 1901:	
Customs.....	15,950,526.91
Postal.....	367,950.60
Internal.....	658,585.92
Miscellaneous.....	184,003.23
	17,161,066.66
July 1, 1901, to May 19, 1902:	
Customs.....	13,402,917.15
Postal.....	335,956.61
Internal.....	688,581.67
Miscellaneous.....	260,519.79
	14,687,975.22
	\$57,197,140.80

EXPENDITURES.

July 18, 1898, to June 30, 1899:	
Customs.....	372,732.57
Postal.....	223,492.75
Other.....	5,192,118.57
	5,788,343.89
Fiscal year 1900:	
Customs.....	841,376.59
Postal.....	494,539.09
Other.....	14,325,469.79
	15,661,385.47

<sup>a</sup> Includes expenditures for public works to June 30, 1900.

Fiscal year 1901:	
Customs .....	\$910, 993. 66
Postal .....	524, 198. 85
Other .....	16, 210, 376. 00
	<u>\$17, 645, 568. 51</u>
July 1, 1901, to May 19, 1902:	
Customs .....	787, 223. 24
Postal .....	383, 531. 34
Other .....	15, 138, 978. 83
	<u>16, 309, 733. 41</u>
	<u>\$55, 405, 031. 28</u>
Excess of revenues over expenditures .....	1, 792, 109. 52

## STATEMENT.

In the summary of revenues and expenditures in Cuba during American occupation the following figures appear, namely:

Revenues .....	\$57, 197, 140. 80
Expenditures .....	55, 405, 031. 28
	<u>1, 792, 109. 52</u>

Excess of revenues over expenditures .....

In order to analyze the balance in favor of the Government of Cuba at the close of American administration in account with collectors, disbursing officers, and others, it is necessary to state an account including all fiscal transactions.

The consolidated balance sheet is as follows:

## DEBTOR.

For excess of revenues over expenditures .....	\$1, 792, 109. 52
Lost property charged to officers .....	278. 88
Funds deposited with the treasurer in excess of amount certified for credit to depositors .....	21, 869. 96
Mines deposits .....	5, 841. 70
Trust funds:	
Money-order funds .....	\$80, 900. 14
Charity funds .....	2, 786. 43
Sinking fund for Normal school purposes .....	3, 508. 30
Outstanding disbursing officers' checks .....	3, 338. 24
	<u>90, 533. 11</u>
Total .....	1, 910, 633. 17

## CREDITOR.

By amount credited to officers for transfer of funds in excess of amount charged .....	50, 757. 39
Amount of indebtedness canceled by authority of military governor under provision of rule 34 .....	498. 59
Suspense items .....	677. 16
In hands of treasurer .....	635, 170. 29
Balance outstanding in Santiago de Cuba from transactions in calendar year 1898 .....	6, 917. 67
Amount due by United States Government for overpayment by General Humphrey (since paid to the Republic of Cuba) .....	29, 836. 22
Net balance in the hands of collectors and disbursing officers .....	1, 186, 775. 85
	<u>1, 910, 633. 17</u>

The foregoing balance sheet represents the condition of the general account as far as audited to the close of business on May 19th. Such items as remained unsettled at that time, as well as the accounts with one or two officers remaining open to be thereafter disposed of, will be reported in a supplementary statement.

## APPENDIX C.

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BY THE PRESIDENT OF THE UNITED STATES.

### A PROCLAMATION.

Whereas, Many of the inhabitants of the Philippine Archipelago were in insurrection against the authority and sovereignty of the Kingdom of Spain at divers times from August, eighteen hundred and ninety-six, until the cession of the archipelago by that Kingdom to the United States of America, and since such cession many of the persons so engaged in insurrection have until recently resisted the authority and sovereignty of the United States; and

Whereas, The insurrection against the authority and sovereignty of the United States is now at an end, and peace has been established in all parts of the archipelago except in the country inhabited by the Moro tribes, to which this proclamation does not apply; and

Whereas, During the course of the insurrection against the Kingdom of Spain and against the Government of the United States, persons engaged therein, or those in sympathy with and abetting them, committed many acts in violation of the laws of civilized warfare; but it is believed that such acts were generally committed in ignorance of those laws, and under orders issued by the civil or insurrectionary leaders; and

Whereas, It is deemed to be wise and humane, in accordance with the beneficent purposes of the Government of the United States towards the Filipino people, and conducive to peace, order, and loyalty among them, that the doers of such acts who have not already suffered punishment shall not be held criminally responsible, but shall be relieved from punishment for participation in these insurrections and for unlawful acts committed during the course thereof by a general amnesty and pardon:

Now, therefore, be it known that I, Theodore Roosevelt, President of the United States of America, by virtue of the power and authority vested in me by the Constitution, do hereby proclaim and declare without reservation or condition, except as hereinafter provided, a full and complete pardon and amnesty to all persons in the Philippine Archipelago who have participated in the insurrections aforesaid or who have given aid and comfort to persons participating in said insur-

rections for the offenses of treason or sedition and for all offenses political in their character committed in the course of such insurrections pursuant to orders issued by the civil or military insurrectionary authorities, or which grew out of internal political feuds or dissensions, between Filipinos and Spaniards, or the Spanish authorities, or which resulted from internal political feuds or dissensions among the Filipinos themselves during either of said insurrections;

*Provided, however,* That the pardon and amnesty hereby granted shall not include such persons committing crimes since May first, nineteen hundred and two, in any province of the archipelago in which at the time civil government was established, nor shall it include such persons as have been heretofore finally convicted of the crimes of murder, rape, arson, or robbery by any military or civil tribunal organized under the authority of Spain, or of the United States of America, but special application may be made to the proper authority for pardon by any person belonging to the exempted classes and such clemency as is consistent with humanity and justice will be liberally extended; and

*Further provided,* That this amnesty and pardon shall not affect the title or right of the Government of the United States or that of the Philippine Islands to any property or property rights heretofore used or appropriated by the military or civil authorities of the Government of the United States, or that of the Philippine Islands, organized under authority of the United States by way of confiscation or otherwise; and

*Provided further,* That every person who shall seek to avail himself of this proclamation shall take and subscribe the following oath before any authority in the Philippine Archipelago authorized to administer oaths, namely:

I, ———, solemnly swear (or affirm) that I recognize and accept the supreme authority of the United States of America in the Philippine Islands and will maintain true faith and allegiance thereto; that I impose upon myself this obligation voluntarily without mental reservation or purpose of evasion. So help me God.

Given under my hand at the city of Washington this fourth day of July, in the year of our Lord one thousand nine hundred and two, and in the one hundred and twenty-seventh year of the Independence of the United States.

THEODORE ROOSEVELT.

By the President:

ELIHU ROOT,

*Secretary of War.*

## APPENDIX D.

### MEMORANDUM FOR THE SECRETARY OF WAR.

HEADQUARTERS OF THE ARMY,  
OFFICE OF THE CHIEF OF ARTILLERY,  
*Washington, November 15, 1902.*

The individual reports of officers present during the operations cover in detail all technical features of the maneuvers.

Upon receipt of a communication from the Chief of Artillery, dated January 2, 1902, in which the opinion was expressed that combined maneuvers between the Navy and coast artillery would prove a most effective means of preparing the latter in time of peace for war, the Secretary of War, on January 9, extended an invitation to the Secretary of the Navy to participate during the coming summer in such maneuvers. This invitation was accepted by the latter on January 12, and the following problem was drafted by the Chief of Artillery:

#### GENERAL IDEA.

Anticipating the declaration of hostilities, a strong Red fleet (without torpedo boats) determines to make a sudden dash upon Newport, or the eastern entrance of Long Island Sound to secure a naval base, taking advantage of the absence of a declaration of war to find the Blue land forces somewhat unprepared.

#### SPECIAL IDEA.

In undertaking these operations the controlling idea should be to test the training of the personnel and the efficiency of the material, and it is of paramount importance that this idea should not be lost sight of.

1. All the forts in the artillery district of Narragansett (Fort Rodman, Fort Adams, Fort Wetherill, and Fort Greble), and in the artillery district of New London (Fort Mansfield, Fort Wright, Fort Michie, and Fort Terry), will be mobilized on a war basis, allowing two reliefs of artillerymen.

2. The period of maneuvers should last eight days and be divided into two distinct phases:

(a) Period of preparation—two days and two nights.

(b) Period of hostility—six days and six nights.

3. It is desirable that the attack or feints should be made all along the line, so as to test the efficiency of each part of the line, rather than to have one main attack upon some prominent point, thereby allowing the enthusiasm and interest at other places to wane by a feeling of fancied security.

4. The attacks by the fleet should embrace a day attack and a night attack, and, if possible, a bombardment and forcing of a passage.

5. This coup being made before a declaration of war, the Red Fleet should be justified in assuming that all passages are not mined.

6. In the report of the Endicott Board on the System of Coast Defenses consideration has been given to the defenses of the various ports of the United States by means



of the cooperation of divisions of torpedo boats. This board allotted to Narragansett Bay 6 and to New London 13 torpedo boats. No system of defense combining these has ever been attempted, so far as known.

A certain number of torpedo boats should act in conjunction with the fixed defenses, and, if possible, the *Holland*, and any other submarines available, would be particularly desirable.

7. During the period of hostilities the conditions are to approach those of war as closely as possible.

The artillery, having had little or no opportunity to become familiar with naval tactics, labored under great disadvantages. A number of fortifications had never before been manned, and at several points the Ordnance Department found it necessary to continue work on guns and carriages until the beginning of operations. The Navy may be said to be always on a war footing so far as its available ships are concerned. Its officers are familiar with our coast and fortifications, and at its war college at Newport, R. I., had fully discussed all the questions involved in the maneuvers, and had made a thorough study of the situation.

The Coast Artillery should be equally well prepared; for when the critical time comes, it must act on very short notice. The naval forces, having had the benefit of the practical experience resulting from the war with Spain, were in a great measure prepared for the work required of them; the Artillery during this war had only the experience of preparing as far as practicable for an attack which never occurred.

The theater of the operations was confined to the artillery districts of Narragansett and New London, and, in addition to the regular companies of Coast Artillery stationed permanently or temporarily in these districts (practically sufficient for two reliefs for each gun), the First Massachusetts Heavy Artillery, two companies of Connecticut Heavy Artillery, the Naval Reserve of New York, Connecticut, Rhode Island, and Massachusetts also took part in the maneuvers. It is greatly regretted that the Thirteenth Regiment, Heavy Artillery, National Guard of New York, owing to lack of State appropriations, was unable to participate.

The many obstacles encountered by the various officers of the line and staff were surmounted by cordial cooperation and earnestness of purpose, and it is the opinion of all officers who participated in the maneuvers that the benefit derived from them can not be overestimated, and that the practical experience gained will exert its influence for years to come. The maneuvers were in the nature of a school of instruction for about one-fourth of the total strength of the Artillery Corps. No better method of imparting technical instruction could possibly be devised. It afforded the recent volunteer appointees a practical illustration of the requirements of modern artillery, and many rules of discipline, command, and administration, which before

had appeared vague and unsatisfactory, were practically exemplified. The artillery was given an opportunity to test not only its own system, methods, and theories of fire direction and control, but also the material furnished by the various supply departments, such as searchlights, cables for telegraph, telephones, and searchlights, installed by the Engineer Department; ammunition and electrical firing gear for the large-caliber guns and mortars, supplied by the Ordnance Department, and telephones, telautographs, and other communications installed by the Signal Corps, which laid and maintained lines for improvised horizontal base systems of range finding, and had charge of the service of security and information beyond the limits of the military reservation, involving the use of telegraph stations on patrol boats and on shore, balloons, rockets, etc.

The tests of personnel and matériel were perhaps even more severe than would result from actual war, and it is probable that the officers and men on duty in the two districts concerned saw more active service during the maneuvers than they would have done under actual conditions of war, as attacks would probably be made at a few predetermined points along our coast, and the commands at the majority of the posts would have no opportunity to oppose a hostile fleet. While, in time of war a particular fortification might come into action for a brief period only, it must be remembered that the enemy's fleet has the choice of objective, and in order that the artillery may be ready at the critical moment to defend any part of the coast which may be attacked, it is essential that it should be fully equipped at all points in matériel, men, organization, training, and practical experience.

To bring about such a condition years of earnest and unremitting effort will be required. It is a dangerous theory that the expenditure of an unlimited amount of money, when an emergency arises, will be effective in the prevention of war. It will require regular and ample appropriations to keep the Coast Artillery prepared to subserve the purpose for which it is intended, and time is absolutely essential to perfect its organization and equipment.

The expense incident to the maneuvers has unquestionably been justified by the benefits which have accrued to the country at large, for as a result of the experience gained many improvements have been and are still being made in the training of the personnel, and also in much of the material which is furnished by the several staff departments.

Believing that the Navy and artillery will derive valuable strategical, tactical, and technical lessons from the maneuvers, it is recommended that they be of annual occurrence, a different locality being selected each year.

WALLACE F. RANDOLPH,  
*Chief of Artillery.*



## APPENDIX E.

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HEADQUARTERS DEPARTMENT OF THE EAST,  
*Governors Island, New York City, October 1, 1902.*

SIR: In conclusion of the maneuvers recently held in this department, in which the Navy and Army participated, full reports are respectfully inclosed herewith, in which will be found the views of the various officers charged with responsible duties in the premises, which are of the highest professional importance, and as such are most earnestly commended to the very careful consideration of the Department. As much of the material contained in these valuable reports is essentially technical, and all of it more or less confidential, it is submitted with only a few remarks in respect of such matters as seem to be of general interest and properly admit of public discussion.

A memorandum is respectfully attached hereto, in which is embodied a brief reference to the manner in which the maneuvers originated, the necessary preliminary action at these headquarters in organizing the same, and a record of events incidental to the execution thereof.

One of the most notable features of the maneuvers was the gravity, professional zeal, and dignity which characterized the deportment of all concerned, which was exceedingly gratifying, as in peace training of this kind it frequently happens that it is not easy to warm the fancy or hold the serious attention of the participating parties, because of the difficulties attending any attempt to present by simulation a truthful imitation of actual war. Although it was apparent that reciprocal hostile action, which molds the events of a real campaign, was absent, it was also very obvious that the fresh and novel situations which arose from bringing ships against forts afforded a considerable scope for decision and ingenuity, and for the manifestation of intelligence, vigor, judgment, and composure in very much the same manner as would have occurred in regular field operations. It is therefore a great pleasure to report to the Department the complete professional success of the maneuvers, together with a suggestive recommendation in behalf of an annual repetition thereof until the entire system of our coast defense has been subjected to a similar test.

As preliminary to the general discussion it may be said that the United States in all warlike emergencies can rely with absolute certainty upon everything possible of accomplishment, by reason of the

voluntary efforts of a practically inexhaustible number of courageous, self-respecting men, and may rely also upon everything that can be quickly produced by the employment of an unlimited supply of money. These indispensable elements of military power must always be a matter of great comfort to the nation, but in the complacent contemplation thereof it must not be forgotten that the enthusiasm of the whole nation, supplemented by billions of wealth, can not create on the instant anything in the production of which time is the essential element.

The fortification work of the Engineer Corps and the Ordnance Department embraced within the limits of the maneuver districts can not be too highly commended. The gun emplacements, both in location and construction, are admirable, and the guns, mortars, and carriages installed therein are splendidly adapted to the purposes of an artillery defense. In the several particulars referred to—that is to say, forts, guns, mortars, and carriages—such perfect types have been evolved as to justify a declaration to the effect that construction in these instances can go forward without any consideration of the possibility of either becoming obsolete within any reasonable time. Minor defects have been known to exist for some time in the great plant involved, more small defects have been brought to light by these maneuvers, further experience will undoubtedly reveal others; but speaking in broad terms of this great national question of coast defense, it may be said that everything relating to emplacements and guns has long since passed the experimental stage, in the light of which fact, and having reference to the preceding formula in respect of time as an incident of constructive work, the primary conclusion which is suggested by the maneuvers is to the effect that all projected coast-defense works be hurried to completion as quickly as possible.

The maneuver field embraced only the Narragansett and New London artillery districts; that is to say, nine posts on the Atlantic coast of the United States, the entire defense of which is composed of forty-five posts. The difficulties attending the mobilizing of these posts in consequence of necessary removal thereto from other districts of pretty nearly all the portable appurtenances appertaining to our entire Atlantic coast defense, carry an impressive, and, if properly accepted, one of the most instructive, lessons of the maneuvers.

Although the subject is one of great concern, it is not regarded as of confidential significance, as it simply means inadequate money appropriations and not any inherent weakness in the nation itself. As the only possible way of obtaining amendment of the military policy, under which such insufficient results are reached, lies in open and intelligent discussion, it is desired in this report to set forth the vast public interest jeopardized, in the hope of securing something like adequate recognition thereof.

Referring to what has previously been said in respect of the excellence of emplacements and guns, a further declaration is made with great emphasis to the effect that when all projected works are completed and armed the coast line of the United States will be practically impregnable against any hostile attack, provided the guns can be properly manned and the fire action thereof can be developed to the full limit of its useful effect.

Considering all the elements that enter into the transaction, even the ordinary practice fire of a high-power gun is an event of national importance. In war there is absolutely no margin for a high-power coast-defense gun missing. To be effective to the end in view nearly every shot must be a hit. Such a condition of utility does not at present exist, but fortunately it is a scientific possibility which can readily be made an actual fact by the simple process of affording necessary facilities for proper artillery training and providing an adequate instrumental equipment, together with a qualified personnel to manipulate the same.

An old time fort, with its numerous guns, was capable of almost continuous fire, such as it was, and when employed against sailing ships had a considerable chance of hitting, because of the numerous shots fired and of the long exposure of the ships. Instead of the broadside effects of the old forts, a modern work has only a few high-power guns, in which are concentrated an enormous weight of metal, from which can be delivered only a comparatively few projectiles at ships moving at full speed under steam. Although the accuracy, as well as the range, of guns has been immensely increased, the chance of hitting, by reason of the relatively small number of shots that can be fired, has greatly diminished, unless each shot can be delivered from a gun laid with scientific precision, which will be possible only under a perfect system of fire control. As such a system does not exist, and its creation must be preceded by laborious experimental investigation, it is apparent that time is the important consideration in working out the problem. In other words, a useful system of artillery fire control is one of the elements of military power that can not be extemporized, and should accordingly be developed and perfected regardless of expense in advance of any emergency; and in this connection it is asserted with all confidence that the accomplished officers who have these matters in charge will in a few years be able to announce a satisfactory solution, if the facilities to carry on the practical work are furnished.

Secondary conclusions are therefore suggested by the maneuvers to the following effect:

(1) That all necessary equipment to make each work an independent, autonomous fighting unit be installed therein at once, having special reference to the system of fire control, in which it is intended to include

searchlights, together with all the steam and electrical power essential thereto.

(2) The ordinary enlisted personnel of an artillery company is in every way capable of performing all necessary services in the batteries, but it can not furnish qualified men to maintain and operate the scientific instruments and the complex electric appliances appertaining to fire control. For this purpose a corps of artillery experts is necessary, to embrace steam engineers, machinists, and electricians. Such a corps could readily be organized by expanding the detachment of post electrician sergeants to 400 men, changing the name, and classifying the men in three grades, the highest of which to receive not less than \$75 per month, and the intermediate grade \$50 per month. As this corps is intended absolutely for coast-artillery work, it should be made an integral part of the artillery arm, the men of which to be assigned as directed by the Secretary of War. The instruction of these men could be accomplished as set forth in the discussion under the head of the School of Submarine Defense. The elaboration of this suggestion is not attempted, as it would require too much space. The subject, however, is regarded as of the very highest importance, and a further memorandum in the premises will gladly be submitted if the Department regards the matter of sufficient importance to continue investigation further.

(3) For the purpose of experimental investigation, necessary to the evolution of a satisfactory fire control system, the supply of full-service charges of ammunition for practice firing at moving targets to be quadrupled for five years.

The artillery arm of the regular establishment is numerically strong enough to furnish hardly one-fifth of the force necessary to fully man all the coast defenses on a war footing. An emergency call for mobilization would undoubtedly be responded to by a large number of zealous but absolutely untrained men, destitute of everything excepting a patriotic desire to do something valuable in behalf of the Republic.

The formation of an artillery reserve, therefore, composed of men having some knowledge of the coast service, is a problem of national concern. As time is one of the essential elements thereof, the expediency is suggested of stimulating the self-interest of States in which seacoast defenses are located, as the militia thereof would make the very best artillery reserve possible. If the various coast States could be induced to regard the problem somewhat in the nature of a local issue, a scheme could easily be worked out whereby all of their militia organizations could have annual training in the batteries at comparatively small expense to either the States or the nation. In several instances State organizations have been designated for this duty, which only emphasizes the fact that all State troops contiguous to sea forts

should receive training of this kind, as in case of emergency the entire body of militia contiguous thereto would hardly be more than half enough to raise the garrisons to a war footing.

The foregoing remarks and the admirable service rendered by the Massachusetts regiment and the coast artillery companies of Connecticut in the recent maneuvers suggest a third important conclusion as the result thereof, to the effect that the States of interest be invited to confer with the War Department with a view to the formulation of practical methods whereby this important training may be imparted to the largest number of men possible.

A line of coast defense is very sensitive, as the isolated forts are open to surprise and flank attacks by means of landing parties from a hostile fleet. To overcome these dangers such a line must be strongly supported by mobile land forces. This important work in the United States must be performed almost exclusively by volunteers, an unfailing reliance beyond all question, if the men can be properly armed and equipped as rapidly as they can be enlisted. Under the impulse of national necessity innumerable thousands of men can be brought together in a few hours, but to make arms and necessary equipments for them is the work of time.

Looking, then, to the tranquillity and self-respect of the nation, and considering the matter in the light of our own experience, the true maxim of safety and of wisdom would seem to suggest keeping in store all necessary supplies which, when the nation must be transferred to a war footing, can not be readily procured—that is to say, can not be produced fast enough after the need for them makes itself felt.

A fourth and most important conclusion is therefore reached as the result of the maneuvers, to the effect that a reserve supply of small arms, ammunition, and essential equipments, sufficient to insure adequate land support for the coast-defense line, by the voluntary organization of the contiguous populations, be placed in arsenals of supply, dedicated exclusively to this purpose, and this purpose only, with a view to a minimum organization of not less than 150,000 men.

The importance of submarine devices as an element of coast defense was emphasized more by what was not done than what was actually accomplished thereby during the maneuvers. The time factor, however, in producing an efficient service was manifested as strongly in this instance perhaps as any other, and suggests some very important generalizations in these premises. The absence of mines in several places greatly weakened the artillery defense, and permitted very brilliant naval action which would have been impossible in mined and obstructed waters. The reason mine fields were not employed more extensively was simply because of want of facilities to do the work quickly.



The recent transfer of submarine defense to artillery has unified and simplified, and thereby immensely strengthened, our system of coast defense; and, now that the proper principle has been established, all that remains to be done is to carry the organization forward as rapidly as possible to a fair degree of perfection through the building up and evolution of the School of Submarine Defense at Fort Totten. This institution is subserving a most important function, and can not be treated with too much generosity. In addition to the general scope of the school, as indicated by its name, most important instruction is imparted to a class of candidates for appointment as post electrician sergeants; and it is the expansion of this submarine school of electricity for enlisted men that was referred to in suggesting a means of training the corps of experts, the organization of which was recommended in No. 2 of "secondary conclusions" submitted herewith.

A fifth conclusion, therefore, arising from the manœuvres is to the effect that the School of Submarine Defense at Fort Totten be magnified in every way expedient, and the reconstruction of the post to meet all the demands of such an institution be expedited as rapidly as possible.

The organization of the service of information was exceedingly satisfactory in every particular, and was an agreeable indication of what may be expected and what will undoubtedly be accomplished in actual war when the unlimited resources of the country are applied by such a thoroughly efficient organization as the Signal Corps of the Army. In this connection especial attention is invited to the reports which describe the experimental employment of wireless telegraphy, the success of which in this instance suggests the expediency of further practical investigation, which, perhaps, would be more readily accomplished by the Navy than by the Army, as the most favorable field for such work is afloat rather than on shore.

It is a matter of regret that this report is so largely devoted to representations in behalf of increased military expenditures—a policy especially distasteful to a self-governing people who impose their own taxes. In support of the contention, however, that the necessity for such a policy is not entirely the result of military vagaries, reference is respectfully made to the views of an eminent philosophical writer who investigated the subject of national defense more than a century ago, and who, in effect, declared that in ancient times the opulent and civilized found it difficult to defend themselves against the poor and barbarous nations; whereas in modern times, by reason of the great expense attending military organization, the poor and barbarous find it impossible to defend themselves against the opulent and civilized.

By free interpretation of ideas this may be accepted the same as a declaration to the effect that a nation that has money and won't spend it for proper purposes of national defense is in precisely the same

position in this particular as though it did not have it. In other words, if our seacoast defenses, by reason of inadequate appropriations, are not organized, manned, and equipped so as to insure abundant protection, it may happen as the result of possibilities well within the scope of the near future that we shall, as a nation, have to accept all the consequences that would naturally arise from national poverty.

Very respectfully,

ARTHUR MACARTHUR,  
*Major-General, Commanding.*

The ADJUTANT-GENERAL, U. S. ARMY,  
*Washington, D. C.*



APPENDIX F.

GENERAL ORDERS, }  
No. 85. }

HEADQUARTERS OF THE ARMY,  
ADJUTANT-GENERAL'S OFFICE,  
*Washington, July 23, 1902.*

The following has been received from the War Department and is published for the information and guidance of all concerned:

WAR DEPARTMENT, *Washington, July 22, 1902.*

*To the Officers of the Army:*

With the reduction of the Philippine force and the withdrawal from Cuba the Army is called upon to resume its most important work in time of peace—the work of perfecting itself in military science and skill, and of promoting the preparation of the United States against future wars. I wish to call your attention to the conditions which now require especial effort and zeal on your part in the performance of this duty.

Since the declaration of war with Spain in April, 1898, there have been appointed in the line of the Army 1,542 lieutenants, in addition to 276 appointed from the Military Academy. Of these 616 were appointed from officers of volunteers under the act of February 2, 1901, 414 were appointed from the enlisted men of the Regular and Volunteer armies, and 512 were appointed from civil life.

The abandonment of the military schools for commissioned officers, which followed the employment of the entire Army in active military operations, has left these 1,542 new lieutenants substantially without any means of acquiring a systematic military education. While many of the former officers of volunteers have acquired the most valuable experience by active service in the field, yet it is of great importance to them as well as to the untrained appointees from civil life and from the ranks that they shall have an opportunity for broad and thorough training, both practical and theoretical, under the competent masters in the art of war whom our Army is able to supply.

Congress has now with wise liberality made provision for the reopening of the army schools, has given its sanction to the general system of military education embodied in the General Orders of November 27 last, including the enlargement and development of the Fort Leavenworth school into a General Service and Staff College, the establishment of the War College at Washington, with suitable buildings, and the rebuilding of the Engineer School, and has made ample appropriation for these purposes.

Every effort will be made by the War College Board, which has general supervision and charge of the whole system, to bring its advantages to the new officers of the Army as speedily as possible and to organize officers' schools at all the considerable posts without delay. I ask for hearty and effective cooperation with them on the part of every officer of the Army. There are 1,452 graduates of the Military Academy now holding commissions. They especially have an opportunity to demonstrate their loyalty to the principles of that institution by helping to diffuse throughout the service the benefits which have come to them from their four years of hard study.

The newly-appointed officers should realize that there is much to be learned, and that the way to qualify themselves for the high and independent command for which they should all hope is by constant intellectual exercise and by systematic study of the reasons of military action and the materials and conditions and difficulties with which military commanders have to deal.

Careful attention to the instruction of the newly appointed officers is enjoined upon all regimental, troop, battery, and company commanders. They should be impressed with the importance of the faithful performance of every duty, however unimportant it may appear to them, and with their responsibility for such conduct and bearing in all their relations as shall do honor to the service.

ELIHU ROOT,  
*Secretary of War.*

By command of Lieutenant-General Miles:

H. C. CORBIN,  
*Adjutant-General, Major-General, U. S. Army.*

## APPENDIX G.

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### REGULATIONS AND PROGRAMME OF INSTRUCTION OF THE GENERAL SERVICE AND STAFF COLLEGE, FORT LEAVENWORTH, KANS.

GENERAL ORDERS, }  
No. 89. }

HEADQUARTERS OF THE ARMY,  
ADJUTANT-GENERAL'S OFFICE,  
*Washington, August 1, 1902.*

The accompanying regulations and programme of instruction for the government of the General Service and Staff College at Fort Leavenworth, Kans., are published for the information and guidance of all concerned.

By command of Lieutenant-General Miles:

WM. H. CARTER,  
*Brigadier-General, U. S. Army,*  
*Acting Adjutant-General.*

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### REGULATIONS OF THE GENERAL SERVICE AND STAFF COLLEGE.

#### OFFICIAL DESIGNATION, ORGANIZATION, AND ADMINISTRATION.

1. The college is officially designated the General Service and Staff College.
2. The commanding officer of the post of Fort Leavenworth, Kans., shall be the commandant of the college.
3. The senior officer on duty with the college, pursuant to orders from the War Department, shall be the assistant commandant of the college.
4. The staff of the college shall consist of the assistant commandant and the instructors in charge of departments. A majority thereof shall constitute a quorum for business. All deliberations, discussions, and individual votes of the staff are to be regarded as confidential.
5. There shall be a secretary of the college, appointed by the commandant.
6. The instructors shall be assisted by such number of assistant instructors, designated by the commandant, as may be required.
7. When practicable, the instructors and assistant instructors shall be senior in rank to the officers of the student class; but when officers assigned as instructors or assistant instructors are junior in rank to

officers of the student class, they shall, in the execution of such duty, be respected accordingly.

8. The instructors and assistant instructors shall, as far as practicable in the judgment of the commandant, be exempt from all duties which would interfere with the performance of duty as instructors or assistant instructors.

9. The officers and the enlisted force and equipment of the several organizations on duty at the post shall be available for the practical instruction of officers of the student class in field operations and drill regulations at such times as may be determined by the commandant.

10. The officers designated as members of the student class shall be detailed in orders from the War Department. As soon as a list of the officers so selected has been furnished to the commandant of the college he shall cause the programme of instruction and the list of authorized text-books to be sent to them.

#### DISCIPLINE.

11. The college shall be governed by the rules of discipline prescribed for military posts and by the regulations of the college. In matters pertaining to the college and the course of instruction it shall be exclusively subject to the control of the War College Board.

#### COMMANDANT OF THE COLLEGE.

12. The commandant shall from time to time apply to the War Department for the detail of officers for duty at the college, and from them he shall assign the assistant commandant, the instructors, the assistant instructors, and the secretary.

13. The commandant shall make application to the War Department for such articles of engineer, ordnance, and signal property as may be necessary.

14. The commandant shall make annual report to the Adjutant-General of the Army of the progress and wants of the college after each yearly examination.

15. The commandant is authorized to order the expenditure of such quantity of ammunition for field guns, machine guns, and small arms as he may deem necessary for proper instruction.

#### ASSISTANT COMMANDANT OF THE COLLEGE.

16. The assistant commandant shall preside at the meetings of the staff in the absence of the commandant.

17. The assistant commandant shall inspect the methods of instruction in the several departments and shall frequently visit the section rooms during recitations or lectures. He shall make report in writing

to the secretary of the college from time to time for the information of the commandant. If occasion should arise, he will make immediate report.

#### THE SECRETARY OF THE COLLEGE.

18. The secretary shall be the custodian of the records. He is responsible for the college fund and for all property purchased therefrom.

19. All official correspondence relating to the college from members thereof shall be addressed to the secretary.

#### DEPARTMENTS.

20. The course of instruction shall be embraced in four departments, as follows:

First. Department of tactics.

Second. Department of engineering.

Third. Department of law.

Fourth. Department of military sanitation and hygiene.

The instructors assigned by the commandant shall have charge of these departments respectively. The chief medical officer at the post shall have charge of the department of military sanitation and hygiene.

21. The departments shall include the courses of study as follows:

Department of tactics: The courses of tactics and minor tactics, organization of armies, field exercises with and without troops, hippology, equitation, small-arms firing regulations, lectures on the principles of strategy, and drill regulations of the different arms.

Department of engineering: The courses of military topography and sketching, field fortification, and field engineering.

Department of law: The courses of law and military administration.

Department of military sanitation and hygiene: The course of military sanitation and hygiene.

#### INSTRUCTION.

22. The course of instruction shall be as provided for in the programme of instruction, covering one year consisting of two terms.

23. The first term's course shall begin on the 1st of September, unless that date fall on Saturday or Sunday, in which case the course shall begin on the following Monday. It shall end on the 21st of December, concluding with the semiannual examinations.

The second term's course shall embrace the period from the 4th day of January to the 30th day of June following, concluding with the final examinations.



24. The month of July following the final examinations shall be devoted to such practical exercises in the field as may be ordered by the commandant.

25. Recitations, including exercises in application, shall be held daily excepting Saturdays, Sundays, and holidays. The period from December 22 to January 4, both dates inclusive, shall also be excepted.

At stated intervals, to be determined by the commandant, during the course of instruction in each department, theses shall be prepared by the student officers in addition to their regular class-room work. The subjects shall be assigned by the respective instructors with the approval of the commandant. They shall be germane to the subject under instruction and shall be such as will not involve unreasonable labor in preparation. In determining the merit of such work, stress shall be laid, not merely upon soundness of conclusions, but also upon combined clearness and terseness of statement and of reasoning. The aim shall be to make them models of military memoranda, as complete and in as few words as will clearly express the ideas.

26. All student officers shall be embraced in one class, which shall be divided into sections of convenient size and adaptation.

27. Record shall be kept of all recitations and exercises, and weekly report of the same shall be made through the instructors to the commandant.

28. Recitations shall be classified as "satisfactory" or "unsatisfactory." Each unsatisfactory recitation shall be at once reported to the commandant, who will require an explanation in writing from the officer reported.

29. The study of text-books and recitations therefrom shall be supplemented by lectures and exercises in applications. Recitations shall not as a rule exceed one hour for each section, but this time limitation shall not apply to practical exercises.

30. The allotment of time for instruction in each department shall be fixed upon the recommendation of the staff, approved by the commandant. Each instructor shall devote to practical instruction as much as possible of the time allotted to his department.

31. Instructors and assistant instructors shall report in writing, on the day of occurrence, all student officers late or absent from recitation or exercise, or neglecting to make proper preparation for the same.

#### EXAMINATIONS.

32. Examinations shall be held in the months of December and June.

33. All examinations shall be written and shall be conducted under the supervision of the staff.

34. When any subject upon which a student is to be graded is weighted, its value shall be announced before the examination work is begun.

35. The instructor and his assistants in any one department shall assign to the student a mark on his examination papers, the marking varying between "0," for a complete failure, and "3," for a perfect paper. The average of the marks given by the instructor and his assistants shall constitute the examination mark in their department. The instructor shall then submit to the Commandant lists of the students under his instruction, arranged in order of merit by marks received (*a*) in examination and (*b*) in practical exercises which have been held during the previous term.

36. In determining the order of merit in any subject, due credit shall be given for problems, maps, and results of practical work pertaining to such subject and required of student officers during the course of instruction.

37. All members of the class shall be given identical questions and required to draw the same maps and diagrams in examination. In the case of an officer not examined with his class owing to sickness or other cause, he shall be examined as soon as practicable after his return to duty. For this examination the topics and questions shall be similar to, but not identical with, those given in the general examination.

38. The examination papers, maps, problems, etc., with such exceptions as the staff may designate, shall, after action by the staff, be filed with the records of the college.

39. To assist in fixing the relative proficiency of officers, the instructor in the department of tactics and his assistants, shall note the manner in which students perform their duties in all military exercises. The ability to impart instruction, to command, to see what is required, and the soldierly bearing of an officer—all shall be considered in marking, according to the rule prescribed for examination.

40. The maximum values assigned to the different departments in ascertaining the figure of merit shall be as follows:

Department of tactics (350):	
Practical work .....	175
Theoretical work .....	175
Department of engineering (300):	
Practical work .....	150
Theoretical work .....	150
Department of law .....	100
Department of military sanitation and hygiene .....	50

41. For record at the college and at the War Department, the class upon graduation shall be arranged in order of merit, special proficiency in any subject to be noted; but publication of the class standing shall be limited to an alphabetical arrangement in two grades, viz:

- (1) Distinguished.
- (2) Proficient.

In determining the order of merit the marks received upon original examination shall be considered.

42. Relative standing in the theory of the different subjects taught in each department shall be based solely upon the examinations, but all practical-work marks shall be considered in determining the order of merit as contemplated in paragraph 41, as well as in deciding upon the proficiency or deficiency of an officer at the close of each term.

43. An officer failing to pass a satisfactory examination in any subject (by which shall be understood the attainment of 70 per cent of the maximum in the examination, as well as 70 per cent of the maximum in the practical work of the previous half year) shall be reexamined either in theory, in practice, or in both, at the discretion of the staff of the college after such equitable time as may be fixed by it, and, if then declared deficient, he shall be specially reported to the War Department, with a statement by the commandant as to the cause of failure as determined by the staff, and with a view to his being returned to his regiment: *Provided*, That if the deficiency occur at the semi-annual examination the officer may be conditioned by the staff until the final examination, at which he shall be examined on the whole year's course of that subject in which the deficiency occurred.

44. The commandant shall forward to the War Department a report of the final action of the staff at each examination.

#### GRADUATION.

45. The staff shall note the names of the students who may have shown marked proficiency in any branch, and shall state the professional employments for which any of them appear to be specially qualified. The staff shall also note the names of officers of the distinguished grade, if any, not to exceed five, to be borne upon the Army Register as "honor graduates."

46. Officers who pass successfully through the entire course of instruction shall receive a diploma setting forth their proficiency. This diploma shall be signed by the commandant, the assistant commandant, and the staff.

47. When an officer has graduated in the distinguished class, that fact, with a transcript from the records of the college, setting forth the branches in which he has been especially distinguished and the recommendations given in his case by the staff of the college, shall be communicated to the colonel of his regiment, who shall publish the same in a regimental order.

#### MISCELLANEOUS.

48. Disbursements of the funds shall be made only upon the written order of the commandant, and vouchers shall be taken for all expenditures, one copy of which shall be filed with the college records.

49. The college library, consisting for the most part of professional books, maps, and scientific periodicals, shall be maintained separate

and apart from the post library and for the convenience and improvement of officers.

50. In case of loss or damage to any book, periodical, map, or other property belonging to the college, the person responsible for such loss or damage shall make the same good by the payment of the amount of the damage or actual cost of the article lost or destroyed. The damage shall be assessed by the secretary of the college, whose action, when approved by the commandant, shall be final.

51. The authorized text-books and books of reference shall be selected upon the recommendation of the staff of the college and with approval of the commandant, but instructors and assistant instructors shall, when required to do so, prepare essays on the subject-matter of their courses of instruction, which, when recommended by the staff and approved by the commandant, shall become authorized text-books and be printed at the college.

52. Student officers shall be required to purchase their text-books.

53. Instructors and assistant instructors shall submit to the college staff, immediately after the final examination, any suggestions or recommendations they may have with regard to the course of instruction and the text-books used in their respective departments.

## PROGRAMME OF INSTRUCTION.

### DEPARTMENT OF TACTICS.

#### PROGRAMME OF THE COURSE IN TACTICS.

The course in tactics is divided into ten parts and embraces lessons, lectures, and practical exercises with and without troops.

Part I.—Infantry drill regulations.

II.—Small arms firing regulations, supplemented by lectures on fire discipline.

III.—Cavalry drill regulations.

IV.—Equitation and hippology.

V.—Demonstrations of field artillery.

VI.—Manual of guard duty.

VII.—Troops in campaign.

VIII.—Security and information.

IX.—Organization and tactics.

X.—Practical work in the study and application of the principles of minor tactics.

#### DETAILED PROGRAMME OF STUDIES.

PART I.—*Infantry drill regulations.*

(a) THEORETICAL.

Definitions; signals; general principles; school of the soldier; school of the company; school of the battalion; evolutions of the regiment; the brigade; the division; the squad; fire discipline; instruction on

varied ground; the platoon; the company; the battalion; the regiment; the brigade in battle; the division in battle; marches; camping; ceremonies.

(b) PRACTICAL.

Exercises in command of the squad, platoon, company, and battalion at drills and battle formations.

PART II.—*Small arms firing regulations.*

(a) Preliminary drills and exercises; sighting drills; position and aiming drills; gallery practice.

(b) Range practice; suggestions to riflemen; skirmish practice; field practice.

(c) Theoretical principles; the motion of bullets; the trajectory as affected by atmospheric conditions.

(d) The effects of fire; dangerous space; defiladed space; employment of fire in action.

(e) Estimation of distances.

(f) Revolver practice.

Recitations in this subject are to be supplemented by lectures on modern developments in small arms with reference to caliber, ammunition, and systems of loading, and lectures on ammunition supply.

PART III.—*Cavalry drill regulations.*

(a) THEORETICAL.

Definitions; signals; general principles; school of the soldier; school of the trooper; the troop; the squadron; the regiment; the brigade; employment of cavalry; marches; camping; stable duty; ceremonies; cavalry horses (instruction, care of, and shoeing); packing.

(b) PRACTICAL.

Exercises in command of the squad, platoon, troop, and squadron at drills and battle formations; exercises in packing.

PART IV.—*Equitation and hippology.*

(a) THEORETICAL.

The cavalry horse; age of horses; endurance of horses; framework of the horse mechanically considered; gaits of the horse; bits; biting and training; saddles; cavalry saddles and packs; seats; forage; stable management; diseases and injuries.

Lecture on the description of the horse.

Lectures on conformation.

Lectures by veterinary surgeon on the bony framework of the horse, muscles, ligaments, and tendons; the foot; the teeth; diseases; the digestive system; soundness.

*(b) PRACTICAL.*

Exercises in determining the age of horses. Exercises in examination for soundness. Exercises in judging conformation. Stable management and horseshoeing. Riding lessons.

PART V.—*Demonstrations of field artillery.*

The course consists of demonstrations on the manual of field and machine guns; mechanical maneuvers of field pieces; ammunition; marches; pointing and ranges, and the employment of United States field artillery in field service and battle.

PART VI.—*Manual of guard duty.**(a) THEORETICAL.*

Rosters; commanding officer; officer of the day; commander of the guard; sergeant of the guard; corporal of the guard; musicians of the guard; orderly for the commanding officer; privates of the guard; orders for sentinels on post; orders for all sentinels except those at the post of the guard; orders for sentinels at the post of the guard; compliments for sentinels; compliments from guards; special orders; color line and sentinels; supernumeraries; prisoners; special orders for sentinels in charge of prisoners; guard patrols; countersigns and paroles; miscellaneous; stable sergeant and stable orderly; troop stable guard; battery stable and park guard; police and fatigue duty; property under charge of the guard; flags and colors; reveille and retreat gun.

*(b) PRACTICAL.*

Tours of duty as officer of the guard and officer of the day.

PART VII.—*Troops in campaign.*

Organization of an army in the field; tents, baggage, and baggage trains; headquarters, depots, etc.; intrenched posts; reconnoissances; military occupation, contributions, and requisitions; safeguards; prisoners of war; marches; journals of marches; military maps; convoys and their escorts; movements of troops by rail and water; advance guards and outposts; sieges; battles.

PART VIII.—*Security and information.*

Preliminary definitions; introduction; the advance guard; outposts; reconnoissances; the cavalry screen; rear guards; spies; newspapers; orientation and map reading; Indian scouting; advance guard drill, infantry and cavalry.

PART IX.—*Organization and tactics.*

Definitions; organization and discipline; characteristics of the three arms; infantry in attack and defense; cavalry in attack and defense; artillery in attack and defense; the three arms combined; convoys; the transportation of an army corps; space and time required in formations and marches.

PART X.—*Practical work in the study and application of the principles of minor tactics.*

- (a) Written tactical exercises, with and without maps.
- (b) Exercises without troops; reconnoissances; tactical rides; selection, occupation, preparation, attack, and defense of positions outlined.
- (c) Exercises with troops; a course in patrolling; relay lines; advance guards; rear guards; flank guards; cavalry screen; outposts (by day and by night); attack and defense of convoys; reconnoissances in force; attack and defense of positions; marches; camps and bivouacs.
- (d) Practice in writing military orders and reports and military correspondence in general, as taught in lectures on this subject.

## DEPARTMENT OF ENGINEERING.

## PROGRAMME OF THE COURSE OF ENGINEERING.

The course of engineering is divided into three parts and consists of lessons, lectures, and exercises in application, as follows:

- Part I.—Military topography and sketching.
- II.—Temporary or field fortifications.
- III.—Military field engineering.

## DETAILED PROGRAMME OF STUDIES.

PART I.—*Topographical surveying (theoretical.)*

Theoretical instruction in this subject will be by recitation, by lectures, by questions, and by criticism of the work done, and will include the following subjects:

General considerations; topographic surveying; military requirements; topographic sketching, principles involved and methods employed; triangulation, how conducted; degrees of magnitude and accuracy; advantages of first using accurate instruments, etc.; consideration of a map; immediate object in topographic surveying.

Drawing papers, inks, and instruments, description of; how to use them; the solution of problems involving their use.

Scales and verniers; construction, reading, and use of.

Selecting base lines; measuring them; use of odometer; ranging lines over hills and across valleys; passing obstacles by direct measurement; the expansion; selection of stations; erection of signals.

Description and adjustments of transit; measuring angles with transit; refraction; curvature; prolonging straight lines; measuring angles of deflection; traversing; plotting the traverse; determining the true meridian.

Description and adjustment of the compass; errors of; declination and variations; determining the true meridian; traversing; establishing lines; converting bearings to azimuths, and vice versa.

Description of plane table; locations by intersection, and secondary triangulation; traversing; locations by resection; resection from two points, from three points, mechanically.

Object of leveling; description of Y level, and adjustments; leveling rods; datum level; bench marks; differential leveling; profile leveling; leveling for grade.

“Filling in” details; instruments and methods used; definition of contours; what they show; method of explaining; definition of ground forms, features, etc.; methods of surveying contour lines; scales of horizontal equivalents, their construction and uses.

*The sextant.*—Description, adjustments, and uses of; theory of; determining latitude; resection; setting off angles; determining distances; determining elevations.

*The aneroid barometer.*—Description, object, uses; determining differences of elevation.

#### PRACTICAL STUDY OF SURVEYING INSTRUMENTS.

The study of instruments by recitation, manipulation, and adjustment will precede, as to each, its use on the ground. As instruction in the course progresses, students will be required to use the instruments in the field, to solve problems depending upon their use, to make the necessary calculations, and to plat the field notes to a given scale. The plats will be submitted and marked according to merit.

The instruments in the use of which practical instruction will be had are as follows:

For measuring distances: Steel tape, chain, odometer, and telemeter.

For measuring angles: Transit, sextant (mariner's and box), compass (surveyor's, prismatic, and box), plane table, and sketching case.

For determining differences of elevation: Engineer's Y-level, transit, clinometer, and barometer.

#### TOPOGRAPHICAL SKETCHING (THEORETICAL).

*Measurement of distances*, by range finders, by odometers, by pacing, by sound, by estimation.

*Measurement of directions*, by the box compass, by the prismatic compass; the plotting diagram; the use of protractors; resection with the compass.



*Measurement of slopes*, with hand clinometer, with slope board.

*Conventional signs and symbols.*

*Finishing maps*, lettering, title, scales, meridian, and border.

*Map reading*, aids in. Using maps on the ground; sections and elevations; the visibility of one point from another; the horizon visible from a given point; calculating height of objects just visible from a given point.

*Copying maps*, same size; enlarging and reducing maps.

*Methods of field work.*—General idea; base line; intersections; traversing in general; traversing with compass and topographic field notebook; traversing with compass and drawing board; traversing with cavalry or field sketching case; traversing without instruments; sketching hill features; sketching mountains. Combined surveys, general method of procedure, finishing and combining (1) of a large tract not previously mapped, when time and instruments are available; (2) of large tract when map is at hand, to show tactical capabilities and recent changes; (3) of a tract when triangulation is impracticable and no map is available. Civil maps as a basis for military topographical maps.

*Map platting from data.*

*Military reconnoissance.*—The sketch; the report. Reconnoissance of roads, of railroads, of rivers, of outposts, of positions.

#### EXERCISES IN APPLICATION OF TOPOGRAPHICAL SURVEYING AND TOPOGRAPHICAL SKETCHING.

The object of these exercises is to familiarize students with the principal processes of topography and to engender skill and rapidity in the representation of topographic features. Each exercise at first is intended to involve the use of some one or more of the instruments as they would be used in topographic work, the taking of notes, reductions, and platting the notes, at the same time studying forms and features in relation to their military capabilities.

They consist in measuring base lines with tape and chain, on level and undulating ground; passing obstacles; ranging out straight lines over hills, across valleys; measuring angles with transit, compass, or sextant; traversing with transit, by azimuths, by deflection angles; prolonging straight lines; traversing with compass; determining true meridian; locating points by intersection and resection with plane table; traversing and filling in details; measuring distances and elevations; pacing on level ground and on slopes of different degree.

Contouring with box compass, clinometer, and drawing board.

Traversing and sketching on foot, from 5 to 10 miles of road, with topographic field notebook, box compass, and clinometer. Traversing and sketching on foot, from 5 to 10 miles of road, with box compass, clinometer, and drawing board. Traversing and sketching on foot

with field sketching case. Traversing and sketching on horseback, from 5 to 20 miles of road, with field sketching case. Traversing and sketching on horseback, from 5 to 10 miles of road, with compass, notebook, and county road map. Outpost or terrain sketching with box compass, clinometer, and drawing board or field sketching case. Position sketching with box compass, clinometer, and drawing board or field sketching case. Combined surveys with box compass, clinometer, and drawing board. The conversion of a small-scale civil map into a military topographical map. Road sketching without distance or angle measuring instruments.

Sketches and reports from memory.

**PARTS II AND III.**—*Temporary or field fortifications and military field engineering (theoretical).*

Theoretical instruction in this subject will be by recitation, by lectures, and by criticism of work done, and will include the following subjects:

General principles and definitions; classification of fire as regards direction and trajectory; projectiles and penetration; field geometry; use of field level in determining slopes; hasty intrenchments, gun pits, and epaulements; loopholes; obstacles; fieldworks, definitions relating to, and classification of, forts and redoubts; sector of fire; defilade in plan and in section; use of traverses; profiling; calculation of width of ditch for a given parapet; laying out tasks; gun banks and embrasures; the organization of working parties and method of extending same preparatory to beginning work; revetting materials and revetments; field casemates and magazines, blockhouses, caponiers, and tambours; fieldworks in combination; continuous lines and lines with intervals; redan trace with curtains; tenaille trace; crémaillère trace; choosing a defensive position; siege works, the common trench and flying sap; defense of localities, preparation for defense of walls, fences, hedges, embankments, cuts, woods, buildings, farms, and villages.

Use of cordage and spars; spar, trestle, and floating bridges; road construction; railroads; demolitions; camping expedients.

**EXERCISES IN APPLICATION.**

*Hasty intrenchments.*—These will embrace the actual construction of rifle pits, shelter trenches, loopholes, obstacles, etc., as well as the location of trenches with reference to the configuration of the ground.

*Fieldworks.*—These comprise the tracing on the ground of fieldworks to fulfill certain stated conditions and the determination of the height of parapet so as to satisfy the requirements of defilade, the making and

placing of profiles, establishing cutting lines, extending and superintending working parties, and the making of revetments. (In these exercises whatever relates to the laying out of the work will be done by student officers, but the manual labor, except such as may be required of students, will be done by working parties of enlisted men under direction of students, the instructor to exercise supervision of all the work.)

*Bridges and roads.*—This work will comprise the construction of spar, trestle, and floating bridges, and the laying out of military roads.

*Demolition:*—Experiments before the class in the actual use of high explosives in destroying walls, cutting rails, felling trees, etc.

#### DEPARTMENT OF LAW.

##### PROGRAMME OF THE COURSE OF LAW.

The course of law is divided into three parts, and consists of lessons in the section room supplemented by lectures.

- Part I.—Military law and Constitution of the United States.
- II.—International law.
- III.—Administration.

##### DETAILED PROGRAMME OF STUDIES.

###### PART I.—*Military law.*

*Military law proper.*—The subject defined and divided; the written military law; the unwritten military law; the court-martial; the constitution and composition of general courts-martial; the jurisdiction of general courts-martial; the procedure of general courts-martial; the arrest; the charge; assembling and opening of the court; the president and members; the judge-advocate; challenges; organization, arraignment, pleas, and motions; evidence; the finding, sentence, and punishment; action on the proceedings; the reviewing authority; inferior courts-martial; the court of inquiry; articles of war separately considered.

*The law of war.*—The law of war as affecting the rights of our own people; the law of war as affecting intercourse between enemies in general; the law of war as specially applicable to enemies in arms; the status of military government and the laws of war pertaining thereto; the status of martial law, and the law of war applicable thereto; trial and punishment of offenses under the law of war; the military commission.

*Civil functions and relations of the military.*—Employment of the military in a civil or quasi-civil capacity; liability of the military to

civil suit or prosecution; other civil relations of the military; the Constitution of the United States and lectures thereupon.

PART II.—*International law.*

Definition and history; States and their essential attributes; perfect and imperfect rights; national character; extradition; private international law; the right of legation; treaties and conventions; the conflict of international rights; war; neutrality; contraband of war; blockade; the right of search; the laws of war on land; additional subjects; instructions for the government of the armies of the United States in the field; the Geneva convention for the amelioration of the condition of the sick and wounded of armies in the field; declaration of St. Petersburg; the treaty of Paris; the convention between the United States of America and certain powers with respect to the laws and customs of war on land. (G. O. 52, A. G. O., June 11, 1902.)

PART III.—*Administration.*

Military discipline; command; post administration; regiments—organization, instruction, and records; company administration; councils of administration; regimental, bakery, company, and mess funds; post bakeries, libraries, etc.; rosters, detachment and daily service; honors, courtesies, and ceremonies; purchase of supplies and engagement of services; money accountability; accounts current; public property, accountability and responsibility; boards of survey; military correspondence; orders; returns of troops; records; Quartermaster's Department—general duties, records, returns and reports required; Subsistence Department—general duties, ration tables, savings, sales, accounts, and returns; Pay Department—reenlistment and continuous-service pay, forfeitures and deductions, deposits.

DEPARTMENT OF MILITARY SANITATION AND HYGIENE.

PROGRAMME OF THE COURSE OF MILITARY SANITATION AND HYGIENE.

The course of military sanitation and hygiene consists of theoretical studies of the authorized text-book (Woodhull's), practically illustrated and explained by lectures, drawings, microphotographs, models, etc.

DETAILED PROGRAMME OF STUDIES.

[Military sanitation and hygiene.]

1. Definition; necessity for the study. Selection of soldiers.
2. Military clothing.
3. Food and alimentation.

4. Barracks and quarters, hospitals, site, soil, dampness of, precautions against; material; ventilation; floor and air space; heating of.

5. Camps; bivouacs; marches; cleanliness; exercise; amusements.

6. Disposal of waste; drainage and sewerage; plumbing, tests for leaks in.

7. Potable waters, quality, quantity required; chemical and other examinations of; common impurities and methods of purification. Ice.

8. Preventable diseases common to armies in campaigns and permanent barracks, and precautions against the same.

## APPENDIX H.

[Corrected copy.]

GENERAL ORDERS, }  
No. 94. }

HEADQUARTERS OF THE ARMY,  
ADJUTANT-GENERAL'S OFFICE,  
*Washington, August 9, 1902.*

I. By direction of the Acting Secretary of War the following laws, regulations, and instructions governing the detail of officers of the Army at educational institutions are published for the information and government of all concerned:

[As amended by act approved September 26, 1888.]

SEC. 1225. The President may, upon the application of any established military institute, seminary or academy, college or university, within the United States, having capacity to educate at the same time not less than one hundred and fifty male students, detail an officer of the Army or Navy to act as superintendent or professor thereof; but the number of officers so detailed shall not exceed fifty from the Army and ten from the Navy, being a maximum of sixty, at any time, and they shall be apportioned throughout the United States, first, to those State institutions applying for such detail that are required to provide instruction in military tactics under the provisions of the act of Congress of July second, eighteen hundred and sixty-two, donating lands for the establishment of colleges where the leading object shall be the practical instruction of the industrial classes in agriculture and the mechanic arts, including military tactics; and after that said details to be distributed, as nearly as may be practicable, according to population. The Secretary of War is authorized to issue, at his discretion and under proper regulations to be prescribed by him, out of ordnance and ordnance stores belonging to the Government, and which can be spared for that purpose, such number of the same as may appear to be required for military instruction and practice by the students of any college or university under the provisions of this section, and the Secretary shall require a bond in each case, in double the value of the property, for the care and safe-keeping thereof and for the return of the same when required: *Provided*, That nothing in this act shall be so construed as to prevent the detail of officers of the Engineer Corps of the Navy as professors in scientific schools or colleges as now provided by act of Congress approved February twenty-sixth, eighteen hundred and seventy-nine, entitled "An act to promote a knowledge of steam engineering and iron shipbuilding among the students of scientific schools or colleges in the United States;" and the Secretary of War is hereby authorized to issue ordnance and ordnance stores belonging to the Government, on the terms and conditions hereinbefore provided, to any college or university at which a retired officer of the Army may be assigned, as provided by section twelve hundred and sixty of the Revised Statutes.

An Act To amend section twelve hundred and twenty-five of the Revised Statutes, concerning details of officers of the Army and Navy to educational institutions.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That section twelve hundred and twenty-five of the Revised Statutes, concerning details of officers of the Army and Navy to educational institutions, be, and the same is hereby, amended so as to permit the President to detail, under the provisions of said act, not to exceed seventy-five officers of the Army of the United States; and the maximum number of officers of the Army and Navy to be detailed at any one time under the provisions of the act passed September twenty-sixth, eighteen hundred and eighty-eight, amending said section twelve hundred and twenty-five of the Revised Statutes, is hereby increased to eighty-five: *Provided*, That no officer shall be detailed to or maintained at any of the educational institutions mentioned in said act where instruction and drill in military tactics is not given: *Provided further*, That nothing in this act shall be so construed as to prevent the detail of officers of the Engineer Corps of the Navy as professors in scientific schools or colleges, as now provided by act of Congress approved February twenty-sixth, eighteen hundred and seventy-nine, entitled "An act to promote a knowledge of steam engineering and iron shipbuilding among the students of scientific schools or colleges in the United States."

Approved January 13, 1891.

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AN ACT to increase the number of officers of the Army to be detailed to colleges.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That section twelve hundred and twenty-five of the Revised Statutes, concerning details of officers of the Army and Navy to educational institutions, be, and the same is hereby, amended so as to permit the President to detail under the provisions of said act not to exceed one hundred officers of the Army of the United States; and no officer shall be thus detailed who has not had five years' service in the Army, and no detail to such duty shall extend for more than four years, and officers on the retired list of the Army may, upon their own application, be detailed to such duty and when so detailed shall receive the full pay of their rank; and the maximum number of officers of the Army and Navy to be detailed at any one time under the provisions of the act approved January thirteenth, eighteen hundred and ninety-one, amending section twelve hundred and twenty-five of the Revised Statutes, as amended by an act approved September twenty-sixth, eighteen hundred and eighty-eight, is hereby increased to one hundred and ten.

Approved, November 3, 1893.

II. The following regulations, in regard to the detail of officers of the Army at established colleges, universities, etc., within the United States are prescribed by the President, under the above laws:

1. All institutions, within the meaning of section 1225, Revised Statutes of the United States, and of the acts of Congress amendatory thereof, shall, for purposes of the detail of officers of the Army as military instructors and of the course of military instruction to be pursued thereat, be divided into three classes, as follows:

*First class.*—All schools to which officers of the Army, active or retired, may be detailed under the provisions of existing law, except schools of the second and third classes.

*Second class.*—Agricultural schools established under the provisions of the act of Congress of July 2, 1862, and which are required by said act to include military tactics in their curriculum.

*Third class.*—Military schools or colleges, i. e., those whose organization is essentially military and one of whose primary objects is the acquisition of a high degree of military drill and discipline.

2. No officer who has not had five years' service as such, nor any officer not of the line of the Army, shall be eligible for detail as military instructor, nor shall any officer above the grade of lieutenant be so detailed so long as there are eligible lieutenants available; nor shall any officer on the retired list of the Army be detailed in the limited number authorized by the act of November 3, 1893, so long as any eligible officer on the active list be available, except at institutions of the first class, for detail to which competent officers on the retired list shall have the preference. All details from the retired list will, under the provisions of said act, be included in the limited number of details authorized by that act.

3. Details shall be made, first, from lieutenants who have graduated at one of the service schools; second, from those recommended by their regimental commanders. After September 1, 1903, no lieutenant shall be recommended by his regimental commander who has not successfully taken the course at an officers' post school.

4. Details shall be made to begin with the school term and shall be for a period of two years, except that in case of retired officers the detail may be for four years.

5. When an officer is detailed to relieve another as military instructor, he shall report at the institution to which assigned not less than two weeks prior to the departure of his predecessor.

6. Applications for the detail of officers must be addressed by the president of the institution to the Adjutant-General of the Army and be accompanied by the last printed catalogue and a certificate as to the number of *male* students the institution has the capacity in buildings, apparatus, and instructors to educate at one and the same time; the number of such students in actual attendance at the time of application, or, if the application be made during vacation, the number actually in attendance during the session immediately preceding it; and the number over 15 years of age. The certificate must also show the grade of the institution, the degrees it confers, and whether or not it is a land-grant school, or a military school as defined in the preceding Paragraph II, section 1.

7. Where a State has more than one school endowed by the national land grant, under the act approved July 2, 1862, the school which is reported by the governor of the State as most nearly meeting the requirements of existing law will be held to have the first claim to the officer allotted to the State for detail at a land-grant college.



8. When application is made for the detail of an officer of the Army at an institution to which an officer had not theretofore been assigned, it shall be visited by an inspector or other suitable officer, who, after explaining to the president and the faculty the requirements of these regulations, shall satisfy himself as to the intention and ability of the school authorities to comply with them, and whether the general sentiment of the faculty is cordially in favor of military instruction as herein required. The inspector shall then report to the War Department whether such a detail should be made.

9. Officers detailed as military instructors shall, at the end of each quarter, report in writing to the Adjutant-General of the Army as to the exact compliance by the school authorities with these requirements of the regulations, for such action as the Secretary of War may direct. A similar report shall be made annually by an officer of the Inspector-General's Department, after a careful inspection of the military department of each institution, and if in any case the report is adverse the military instructor shall be withdrawn.

10. No detail of military instructor shall be made at any institution which does not guarantee to maintain at least 100 pupils under military instruction.

11. Pupils under military instruction shall be organized into companies and battalions of infantry, the drill and administration of which shall conform in all respects to that of the Army. The officers and the noncommissioned officers shall be selected by the military instructor according to the principles governing such selection at the United States Military Academy, and shall receive their commissions and warrants from the president of the institution.

12. Pupils organized for military instruction shall be known as "The company (or battalion) of cadets of —— Institution." Upon occasions of military ceremony, in the execution of drills, guard duty, and when students are receiving any other practical military instruction, they shall appear in the uniform prescribed by the institution. They shall be held strictly accountable for the arms and accouterments issued to them.

13. At every institution of the first class (see Paragraph III) at which a military instructor is detailed there shall be allowed a minimum of four hours each week during each school term to the department of military science and tactics; at every institution of the second class there shall be allowed a minimum of five hours, and at every institution of the third class there shall be allowed a minimum of six hours. This time shall be occupied as the military instructor, in view of the hereinafter-prescribed curriculum and such instructions as he may from time to time receive from the War Department, may deem best.

14. The officer detailed as military instructor shall reside at or near the institution to which assigned, and when in the performance of his military duties shall appear in proper uniform. He shall, in his relations to the institution, observe the general usages and regulations therein established affecting the duties and obligations of other members of the faculty. Except at institutions of the first class, as defined in Paragraph II, section 1, he shall not perform any other duties than those of instructor in military science and tactics.

III. All rules and orders relating to the organization and government of the military students; the appointment, promotion, and change of officers, and all other orders affecting the military department, except those relating to routine duty, shall be made and promulgated by the professor of military science and tactics after being approved by the president or other administrative officer of the institution.

IV. It is the duty of the professor of military science and tactics to enforce proper military discipline at all times when students are under military instruction, and in case of serious breaches of discipline, or misconduct, to report the same to the proper authorities of the institution, according to its established methods. In case no suitable action is taken by the authorities of the school, the military instructor will report the facts to the Adjutant-General of the Army with a view to his being relieved from an institution where discipline can not be maintained.

V. The following is prescribed as the minimum course of military instruction, practical and theoretical, at all institutions to which a military instructor is assigned:

#### 1. INSTITUTIONS OF THE FIRST CLASS.

##### (a) PRACTICAL.

Infantry Drill Regulations, through the school of the battalion in close and extended order.

Advance and rear guards, and outposts.

Marches.

The ceremonies of battalion review, inspection, parades, guard mounting, and escort of the colors.

Infantry target practice.

Instruction in first aid to the injured.

Weather permitting, there shall be not less than one parade and one guard mount during each week of the school term, and one battalion inspection and review each month.

In no case shall target practice, to the extent permitted by the allowance of ammunition, be omitted during the school year, except on authority given in each case by the Secretary of War.

Target practice on the range should be preceded by instruction in gallery practice, and at those institutions where range practice can not be had, every effort must be made to substitute gallery practice for it.

(b) THEORETICAL.

The Infantry Drill Regulations covered by the practical instruction.  
The Manual of Guard Duty.

Small-Arms Firing Regulations, Parts I, II, and VII.

The Articles of War, with special reference to articles 4, 8, 15, 20, 21, 22, 23, 24, 32, 38, 39, 40, 42, 44, 46, 47, 50, 55, 57, 61, and 65.

And the following records: Enlistment and discharge papers, including descriptive lists; morning reports; field and monthly returns; muster rolls; rosters; ration returns; requisitions; property returns.

The articles of war specifically mentioned are among the most important for the young officer to know on first entering the service.

The records prescribed for study should be thoroughly understood by all graduating cadets, because they show how the soldier enters and leaves the service, how he is accounted for, paid, fed, clothed, armed, and how his military duties are regulated.

2. INSTITUTIONS OF THE SECOND CLASS.

(a) PRACTICAL.

Same as the practical course for institutions of the first class, and, in addition—

A guard shall be mounted five times (weather permitting) in each week of the school year, and the guard shall be practically instructed for one hour in the posting and relief of sentinels and their duties.

(b) THEORETICAL.

Same as the theoretical course for institutions of the first class, and, in addition—

Ten lectures each year upon the following subjects, notes to be taken by the students and to be made the basis of subsequent recitations: Two lectures on the organization of the United States Army, including volunteers and militia; one lecture on patrols and outposts; one lecture on marches; one lecture on camps and camp hygiene; three lectures on lines and bases of operations; two lectures on the attack and defense of advance and rear guards and outposts, and convoys.

All of the foregoing to be illustrated by historical examples.

3. INSTITUTIONS OF THE THIRD CLASS.

(a) PRACTICAL.

Same as the practical course for institutions of the second class, and, in addition—

Light artillery drill regulations in the school of the cannoneer.

Mechanical maneuvers.

Aiming drill and, where practicable, target practice.

There should be a guard mount and parade daily (weather permitting), except Saturdays and Sundays.

One-fourth of the time devoted to practical work should be given to advance guard and outpost drill, reconnoissances, and patrols, conducted as prescribed in any work accepted by the War Department as a standard on security and information.

Instruction in first aid to the injured.

(b) THEORETICAL.

Same as the theoretical course for institutions of the second class, and, in addition—

The elements of field engineering, to include practical exercises in the determination of the military crest and the profiling of hasty intrenchments for infantry; the study of an elementary work on the art of war.

VI. The following apportionment, in accordance with the foregoing laws and the census of 1900, having received the approval of the Acting Secretary of War, is adopted, and details will be made in accordance therewith:

*Apportionment of details at colleges, universities, etc., under section 1225, Revised Statutes, and the amendments thereof, based upon the number of officers of the Army available for such details.*

States.	Population of States arranged in groups.	Population of groups and of States not arranged in groups.	Details for land-grant schools.	Details by population.	Total details due.
Maine .....	694,466	1,449,695	1	1	4
New Hampshire .....	411,588				
Vermont .....	343,641				
Massachusetts .....	428,556	2,805,346	1	2	3
Rhode Island .....					
Connecticut .....	908,420	1,386,976	1	1	3
New York .....	7,268,894				
New Jersey .....	1,883,669	9,152,563	1	7	9
Pennsylvania .....	6,302,115				
Delaware .....	184,735	6,486,850	1	5	7
Maryland .....	1,118,044				
District of Columbia .....	278,718	1,396,762	1	1	2
Virginia .....	1,854,184				
West Virginia .....	958,800	2,812,964	1	2	4

*Apportionment of details at colleges, universities, etc.—Continued.*

States.	Population of States arranged in groups.	Population of groups and of States not arranged in groups.	Details for land-grant schools.	Details by population.	Total details due.
North Carolina .....		1,893,810	1	1	2
South Carolina .....		1,340,316	1	1	2
Georgia .....	2,216,331	2,744,873	1	2	4
Florida .....	528,542				
Alabama .....		1,828,697	1	1	2
Mississippi .....		1,551,270	1	1	2
Louisiana .....		1,381,625	1	1	2
Arkansas .....		1,311,564	1	1	2
Texas .....	3,048,710	4,034,411	1	3	4
Oklahoma .....	398,331				
Indian Territory .....	392,060				
New Mexico .....	195,310				
Tennessee .....	2,020,616	4,167,790	1	3	5
Kentucky .....	2,147,174	4,157,545	1	3	4
Ohio .....					
Indiana .....		2,516,462	1	2	3
Michigan .....		2,420,982	1	2	3
Illinois .....	4,821,650	6,890,592	1	5	7
Wisconsin .....	2,069,042	5,338,518	1	4	6
Iowa .....	2,231,853				
Missouri .....	3,106,665	2,715,439	1	2	6
Minnesota .....	1,751,394				
North Dakota .....	319,146	1,470,495	1	1	2
South Dakota .....	401,570				
Montana .....	243,329	1,606,000	1	1	3
Kansas .....		1,606,000	1	1	3
Nebraska .....	1,066,300				
Colorado .....	539,700	1,691,549	1	1	7
Alaska .....	63,592				
Washington .....	518,103	1,691,549	1	1	7
Oregon .....	413,536				
Idaho .....	161,772	1,691,549	1	1	7
Wyoming .....	92,531				
Nevada .....	42,335	1,639,054	1	.1	2
Utah .....	276,749				
Arizona .....	122,931	1,639,054	1	.1	2
California .....	1,485,053				
Hawaii .....	154,001				

VII. The following are the regulations prescribed by the Secretary of War for the issue of arms, etc., required for military instruction and practice at colleges, universities, etc., under section 1225, Revised Statutes, and the amendments thereof:

1. As the appropriations for the supply of ordnance and ordnance stores to the Army are very limited, and as the language of the law restricts the issues that can be made to colleges to such as "can be spared for that purpose," issues of ordnance and ordnance stores to colleges will be limited to arms and the equipments and implements necessary to enable them to be used by the students for purposes of

drill, parade, and similar exercises, but not for field and encampment purposes.

2. Only such ordnance and ordnance stores as are enumerated in the following paragraphs will be issued for the purpose of military instruction to each selected college and university having an officer of the Army stationed thereat.

3. The field pieces of artillery, with their carriages and implements, will be limited to the following, viz:

Two muzzle-loading wrought-iron rifled guns, caliber 3 inches; 2 carriages and limbers for 3-inch guns; 2 gunner's haversacks; 2 trail handspikes; 4 lanyards; 2 priming wires; 4 sponges and rammers, 3-inch; 4 sponge covers, 3-inch; 2 tube pouches; 4 thumb stalls; 2 tompons, 3-inch; 2 vent covers; 1 pendulum hausse, 3-inch; 1 pendulum-hausse seat; 1 pendulum-hausse pouch; 2 paulins, 12 by 15 feet.

4. When in the opinion of the Chief of Ordnance the supply on hand will permit, there may be issued in lieu of the foregoing two of the 3.2-inch breech-loading steel field guns, with their carriages and implements, as above.

5. The small arms issued to any college will be the Springfield "Cadet" rifles, similar to those which were supplied the United States Military Academy at West Point, but in no case will the number of rifles issued be in excess of the number of male students in regular attendance and actually receiving military instruction.

6. The accouterments to be issued with the Cadet rifles will consist of a bayonet scabbard, cartridge box, gun sling, waist belt, and waist-belt plate.

7. The service noncommissioned officer's sword can be issued for the use of the officers and noncommissioned officers of the Corps of Cadets. The sliding frog will enable these swords to be worn on the ordinary waist belt.

8. A limited number of cavalry sabers and belts (for purposes of instruction only) will be issued when satisfactory evidence of their necessity is presented.

9. Issue of the above stores will be made by the Chief of Ordnance to any selected institution upon its filing a bond in the penal sum of double the value of the property, conditioned that it will fully insure, take good care of, and safely keep and account for the same, and will, when required by the Secretary of War, duly return the same, within thirty days, in good order, to the Chief of Ordnance, U. S. Army, or such other officer or person as the Secretary of War may designate to receive them.

10. For practice firing, the following allowances of ammunition will be made annually to each of the various institutions, viz: One hundred blank cartridges and 300 friction primers for 3-inch, or for 3.2-inch breech-loading gun, as the case may be. Projectiles will not be issued for the field guns.

11. Ammunition for rifle target practice will be issued annually at the rate of 50 carbine ball cartridges (or their equivalent value in reloading material, reloading tools, or target supplies) for each cadet actually engaged in target practice, but there shall not be issued to any college more than 7,500 ball cartridges in any one year. Where it is not deemed practicable to have target practice, a limited quantity of rifle blank cartridges will be furnished for instruction in firing. This ammunition will be issued upon requisition, to be forwarded to the Chief of Ordnance by the presidents or superintendents of the institutions; and as annual allowances date in all cases from July 1 of each year, requisitions should be forwarded before or as soon after that date as practicable for the current year's supply. Undrawn allowances of one year can not be drawn in the succeeding year.

12. The reloading material, reloading tools, and target supplies which can be drawn as part of the ammunition allowance for target practice are:

(a) Reloading materials, consisting of small-arms powder, carbine bullets, round balls, cartridge primers.

(b) Reloading tools, consisting of one set of hand reloading tools. (Bench reloading tools are not issued to colleges.)

(c) One bullet mold, casting four balls, one melting ladle, one pouring ladle.

(d) Target supplies, consisting of paper targets A and B, and centers for these targets, paper targets for gallery practice, posters, white and black.

13. When tools for reloading rifle cartridges or implements for casting lead balls for gallery practice have been issued to colleges, the parts required to keep them in good order may be issued when requested, and charged against the money value of the annual ammunition allowance.

14. All ordnance and ordnance stores issued to colleges must be kept insured by the college authorities for their full invoice value, as shown in the bond, and the Chief of Ordnance promptly informed when and where the insurance is placed.

15. The transportation of ordnance and ordnance stores from the Government arsenals to institutions of learning, and from institutions of learning back to the Government arsenals, is always without expense to the United States.

16. The colleges to which issues of ordnance and ordnance stores are made, under bonds given as required by law, will be required to keep said property in like good and serviceable condition as when issued by the Government, and for this purpose the spare parts, implements, and appendages necessary for this purpose will be sold to them at cost price on application to the Chief of Ordnance.

17. When ordnance and ordnance stores are returned to the Ordnance Department by any institution of learning, they will be carefully

examined when received at the arsenal, and if they are found imperfect or unserviceable by reason of carelessness or other causes than legitimate use in service the damage will have to be made good to the United States.

18. The cost of all missing property must be made good to the United States.

19. When any of the ordnance or ordnance stores become unfit for further use the president of the college will report the fact to the Chief of Ordnance, and he will authorize the college to send them to an arsenal without expense to the United States. On reaching the arsenal the property will be inspected by an officer of the Ordnance Department, and if its condition is found to be due to the ordinary incidents of service it may be replaced with serviceable stores of like character; but if its condition is found to be due to carelessness or other than legitimate causes the extent of damage or value of missing stores will be determined by the Chief of Ordnance and must be paid by the college before any new issue of stores is made.

20. The guns and carriages must not be allowed to remain outdoors with only the paulins as a protection from the weather, but they must be housed in a suitable shed and habitually kept there except when used for drills or saluting purposes.

21. Regular property returns will be rendered quarterly to the Chief of Ordnance by each president or superintendent of an institution supplied with arms, etc., accounting for all ordnance and ordnance stores issued to the institution under his charge. These returns will be made on the blank forms to be supplied by the Chief of Ordnance.

22. Failure on the part of any institution of learning to comply with the foregoing regulations, or any others that may be prescribed by the Chief of Ordnance, for the care, preservation, or accountability of any ordnance or ordnance stores issued to it by the United States, will be considered sufficient cause for the prompt withdrawal by the Secretary of War of the Government property in its possession.

23. Whenever any institution shall fail to return the public property in its charge within thirty days after demand made by the Secretary of War, the delinquency will be peremptorily referred to the Attorney-General, that the bond of the institution may forthwith be put in suit.

24. The following is the form of bond to be executed previous to the issue of ordnance and ordnance stores, viz:

FORM OF BOND.

Know all men by these presents that we, the *Knox College, located at Galesburg, Illinois*, a corporation duly organized under the laws of the State of *Illinois*, as principal, and *Clark E. Carr, of Galesburg, Illinois*, and *Edgar A. Bancroft, of Galesburg, Illinois*, as sureties, are held and bound to the United States of America in the penal



sum of *a eight thousand four hundred and seventy-two dollars and ninety cents* (\$8,472.90), for the payment of which well and truly to be made to the Secretary of War, or to such officer or person whom he may designate, we do bind ourselves and each of us, our successors, heirs, executors, and administrators, for and in the whole, jointly and severally, firmly by these presents. Given under our hands and seals at *Galesburg, Illinois*, this 10th day of *May*, A. D. 1888.

The condition of the above obligation is such that, whereas the *Knox College* is an established *college*<sup>b</sup> within the United States having capacity to educate at the same time not less than one hundred and fifty male students, and whereas the said *college*<sup>b</sup> has heretofore applied to the President of the United States to detail an officer of the Army to act as professor of military science and tactics thereof, and the President by virtue of the authority vested in him by section 1225, Revised Statutes, as amended by the act of September 26, 1888, has detailed such officer to act accordingly; and whereas the Secretary of War by the authority vested in him by said section is about to issue to the said *college*<sup>b</sup> for the military instruction and practice of the students thereof the following ordnance and ordnance stores, to wit:

2 muzzle-loading wrought-iron rifled guns, caliber 3 inches, at \$450.....	\$900. 00
2 carriages and limbers, for 3-inch gun, at \$325.....	650. 00
2 gunner's haversacks, at \$2.20.....	4. 40
2 trail handspikes, at \$1.10.....	2. 20
4 lanyards, at 10 cents.....	. 40
2 priming wires, at 10 cents.....	. 20
4 sponges and rammers, 3-inch, at \$1.....	4. 00
4 sponge covers, 3-inch, at 30 cents.....	1. 20
2 tube pouches, at \$1.50.....	3. 00
4 thumbstalls, at 20 cents.....	. 80
2 tompions, 3-inch, at 30 cents.....	. 60
2 vent covers, at 40 cents.....	. 85
1 pendulum hausse, 3-inch.....	2. 50
1 pendulum-hausse seat.....	. 60
1 pendulum-hausse pouch.....	. 70
2 paulins, 12 by 15 feet, at \$10.25.....	20. 50
150 Springfield "Cadet" rifles, caliber .45, with appendages, etc., at \$15..	2, 250. 00
150 bayonet-scalbards, steel, Cadet, at 81 cents.....	121. 50
150 waist-belts and plates, at 60 cents.....	90. 00
150 cartridge boxes, caliber .45, at \$1.22.....	183. 00

being together of the value of *four thousand two hundred and thirty-six dollars and forty-five cents* (\$4,236.45); all of which property, when issued, the said *college*<sup>a</sup> hereby agrees to take good care of and safely keep, insure, and keep insured against loss to the United States, and account for quarterly on blank forms to be prescribed by the Chief of Ordnance, United States Army, and to return all of said property to said Chief of Ordnance, or such officer or person as may be designated to receive the same within thirty days after demand by the Secretary of War.

Now, therefore, if the said *college*<sup>a</sup> shall take good care of and safely keep and insure and keep insured against loss to the United States and account for the said ordnance and ordnance stores, and shall when required by the Secretary of War duly return the same within thirty days in good order to the Chief of Ordnance, United States Army, or to such other officer or person as the Secretary of War may designate to receive them, then this obligation shall become inoperative and void, otherwise to remain in full force and virtue.

In witness whereof, and in pursuance of a resolution of the *board of directors*<sup>c</sup> passed on the *first* day of *May*, A. D. 1888, a copy of which is hereto annexed, the

<sup>a</sup> Double the value of the property.

<sup>b</sup> College or university.

<sup>c</sup> Board of directors or other governing body of the institution.

corporate seal of said corporation is hereto affixed and these presents duly signed by the *president of the college.*<sup>a</sup>

KNOX COLLEGE,  
By NEWTON BATEMAN. [SEAL.]  
*President.*

In presence of—  
GEO. A. LAWRENCE,  
THOMAS A. BROWN.

CLARK E. CARR. [SEAL.]

In presence of—  
ROBERT G. SUTTON,  
CHAS. E. BAILEY.

EDGAR A. BANCROFT. [SEAL.]

In presence of—  
E. A. SKILLMAN,  
S. C. HULL.

STATE OF ILLINOIS, *County of Knox, ss:*

On this 10th day of *May*, 1888, personally appeared before me, a *notary public* for the county aforesaid, *Clark E. Carr*, one of the sureties named in the within bond, who made oath that he is worth *eight thousand five hundred* dollars over and above all his debts and liabilities.

CLARK E. CARR.

Sworn and subscribed before me on the day and date aforesaid.

GEORGE A. LAWRENCE,  
*Notary Public.*

STATE OF ILLINOIS, *County of Knox, ss:*

On this 10th day of *May*, 1888, personally appeared before me, a *notary public* for the county aforesaid, *Edgar A. Bancroft*, one of the sureties named in the within bond, who made oath that he is worth *eight thousand five hundred* dollars over and above all his debts and liabilities.

EDGAR A. BANCROFT.

Sworn and subscribed before me on the day and date aforesaid.

GEORGE A. LAWRENCE,  
*Notary Public.*

I, *Elmer S. Dundy*, hereby certify that the sureties who have signed the foregoing bond are personally known to me, and that each is responsible and sufficient to insure the payment of the entire penalty named therein.

ELMER S. DUNDY,

*Judge of the District Court of the United States in and for the State of Illinois.*

The following instructions must be strictly observed in preparing the bond required to be furnished the Chief of Ordnance, U. S. Army, before any arms, etc., can be obtained by any college:

25. A copy of the record of the adoption of the resolution of the board of directors or governing body of the institution, including also the record of the resolution itself, authorizing the president to execute the bond on behalf of the corporation, authenticated by the signature of the secretary and the corporate seal, must accompany the bond.

26. A copy of the charter or articles of incorporation, authenticated by the secretary of state, is also required.

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<sup>a</sup>The president or officer authorized to sign for the institution.

27. The sureties must sign and seal the bond. The seal must be attached opposite the signature of each person and must be a seal of wax, wafer, or other adhesive substance, not a mere scroll with a pen. Their names must be written in the body of the bond, together with their residence, including town, county, State or Territory.

28. Two witnesses are required to each signature.

29. There must be two sureties when individuals are the sureties. Each surety must make oath that he is worth some specific sum, equal to the full amount of the penalty, over and above all his debts and liabilities. Two persons must not join in one affidavit. Each one must subscribe and acknowledge his own oath separately. The sufficiency of the sureties must be certified to by some United States judge or district attorney, whose official character must be certified to by the clerk of his court, such certificate to be on or attached to the bond.

30. Incorporated surety companies which have complied with the requirements of the War Department will also be accepted as surety on the bond, and in this case only one surety is required.

31. A college corporation desiring ordnance or ordnance stores for the use of the college must furnish evidence that some one is authorized to execute in its behalf the bond which the law requires.

32. This authority can only be given by the governing body of the corporation, i. e., the body invested with authority to employ the faculty and make all other contracts in its behalf, and designated in the charter of the corporation as board of regents, board of trustees, etc., and this body must give the authority in the formal way in which it does other business, the action taken being recorded as a part of the proceedings of the meeting at which it was taken. The evidence of this authority required to be furnished to this office will be an extract from the record of the proceedings of the board of regents, or board of trustees, showing that the board met in its official capacity, that a resolution was offered authorizing some person by name to execute the required bond for the corporation, and that this resolution was adopted; and this extract must be certified, under the corporate seal, to be a true extract from the record of the proceedings of the board, by the secretary or other custodian of the records. His certificate that the authority has been conferred, or that such a resolution was passed, is not sufficient. The record speaks for itself, and a copy of so much of it should be furnished as will show that it purports to be a record of the board, that the resolution was offered, and that it was passed.

33. Great pains should be taken to use the name given the corporation by its charter, and to mention in the resolution the particular bond to be given.

34. It is desired that a copy of the charter be sent to the Chief of Ordnance, U. S. Army, Washington, D. C.; also, a copy (accompanied by certificate under corporate seal) of so much of the record of the election of the officers of the corporation as will show the election of the particular officer who is to execute the bond.

In calling for form of bond it should be stated—

First. If the principals and sureties are individuals.

Second. If the principal is a corporation and surety an individual.

Third. If principal is an individual and surety a corporation.

Fourth. If both principal and surety are corporations.

As indicated above, there are four forms of bond, as follows:

*Form K.*—When both principal and sureties are individuals.

*Form L.*—When principal is a corporation and sureties are individuals.

*Form M.*—When principal is an individual and surety is a corporation.

*Form N.*—When both principal and surety are corporations.

In calling for the blank forms of bond, they may be called for as "Form K," "Form L," etc.

VIII. In the administration of each cadet battalion the adjutant, assisted by the sergeant-major, shall keep a letter book, an order book, a roster, and a consolidated morning-report book. The quartermaster, assisted by the quartermaster-sergeant, shall keep a book containing a record of all issues of Government property, with the receipts of those to whom issued. Each captain shall keep a morning-report book and, where necessary for the regulation of duty, a roster. At institutions of the third class the morning report shall be made out by the captains daily; at the other institutions on drill days or when the cadets are ordered to parade.

IX. The professor of military science and tactics shall render a quarterly report to the Adjutant-General of the Army of the whole number of undergraduate students in the institution capable of performing military duty, the number required by the institution to be enrolled as military students, the average attendance at drills, the number absent, and number and kind of drills, recitations, and lectures, or other instruction had during the quarter, and the number reported for discipline. He will retain copies of all reports and correspondence and transfer them to the officer who may succeed him, or forward them to the Adjutant-General's Office should the detail expire. On the graduation of every class he shall obtain from the president of the college and report to the Adjutant-General of the Army the names of such students belonging to the class as have shown special aptitude for military service, and furnish a copy thereof to the adjutant-general of the State for his information. At those institutions which grade the

department of military science and tactics equally with the other important branches of instruction, and which make proficiency in that department a requisite for securing a diploma, the names of the three most distinguished students in said department shall, when graduated, be inserted in the U. S. Army Register.

X. The military department shall be subject to inspection under the authority of the President of the United States; such inspections to be made, when practicable, near the close of the college year. The inspecting officer shall, upon his arrival at the institution, report to the president or other administrative officer, in order to obtain from him the necessary facilities for the performance of his duty. A copy of the report of inspection will be furnished the president of the institution by the War Department.

XI.—The following are the laws providing for the detail of retired officers at colleges, universities, etc.:

[Section 1260, Revised Statutes.]

Any retired officer may, on his own application, be detailed to serve as professor in any college. (But while so serving, such officer shall be allowed no additional compensation.)

[Extract from the act of Congress approved May 4, 1880.]

That upon the application of any college, university, or institution of learning incorporated under the laws of any State within the United States, having capacity at the same time to educate not less than one hundred and fifty male students, the President may detail an officer of the Army on the retired list to act as president, superintendent, or professor thereof; and such officer may receive from the institution to which he may be detailed the difference between his retired and full pay, and shall not receive any additional pay or allowance from the United States.

[Extract from the act of Congress approved August 6, 1894.]

*Provided*, That nothing in the act entitled "An act to increase the number of officers of the Army to be detailed to colleges," approved November third, eighteen hundred and ninety-three, shall be so construed as to prevent, limit, or restrict the detail of retired officers of the Army at institutions of learning under the provisions of section twelve hundred and sixty, Revised Statutes, and the act making appropriations for the support of the Army, and so forth, approved May fourth, eighteen hundred and eighty, nor to forbid the issue of ordnance and ordnance stores, as provided in the act approved September twenty-sixth, eighteen hundred and eighty-eight, amending section twelve hundred and twenty-five, Revised Statutes, to the institutions at which retired officers may be so detailed; and said act of November third, eighteen hundred and ninety-three, and said act of May fourth, eighteen hundred and eighty, shall not be construed to allow the full pay of their rank to retired officers detailed under said section twelve hundred and sixty, Revised Statutes, and said act of May fourth, eighteen hundred and eighty.

[Extract from the act of Congress approved February 26, 1901.]

SECTION 1. \* \* \* That section twelve hundred and twenty-five of the Revised Statutes, concerning the detail of officers of the Army and Navy to educational institutions be, and the same is hereby, amended so as to permit the President to detail under the provisions of that act, and in addition to the detail of the officers

of the Army and Navy now authorized to be detailed under the existing provisions of said act, such retired officers of the Army and Navy of the United States as in his judgment may be required for that purpose, to act as instructors in military drill and tactics in schools in the United States, where such instruction shall have been authorized by the educational authorities thereof, and where the services of such instructors shall have been applied for by said authorities.

SEC. 2. That no detail shall be made under this act to any school unless it shall pay the cost of commutation of quarters of the retired officers detailed thereto and the extra-duty pay to which the latter may be entitled by law to receive for the performance of special duty: *Provided*, That no detail shall be made under the provisions of this act unless the officers to be detailed are willing to accept such position without compensation from the Government other than their retired pay.

The details authorized by section 1260, Revised Statutes, as amended by the act approved May 4, 1880, and by the act approved February 26, 1901, will be in addition to the number allowed by section 1225, Revised Statutes, and the amendments thereof, and may be made to incorporated institutions of learning of the requisite grade in any State, without reference to population or to the number of officers already serving therein.

By command of Lieutenant-General Miles:

H. C. CORBIN,  
*Adjutant-General, Major-General, U. S. Army.*



## APPENDIX I.

GENERAL ORDERS, }  
No. 102. }

HEADQUARTERS OF THE ARMY,  
ADJUTANT-GENERAL'S OFFICE,  
Washington, September 22, 1902.

To carry out the provisions of General Orders, No. 155, Adjutant-General's Office, of November 27, 1901, which relate to officers' schools at posts, the following instructions are published for the information and guidance of all concerned:

1. Post commanders, subject to the supervision of department commanders, shall have immediate charge of the instruction and shall cause detailed records to be kept of the operations of the schools in order to facilitate the work of inspection.

2. All field officers and captains of over ten years' service as commissioned officers will be utilized as instructors, but failing a sufficient number of these, post commanders will detail such other officers as in their judgment possess fitness for such duties. Instructors of the last-named class will be excused from recitations during the school term, but at the end thereof will be required to take examinations in all subjects completed during the course, except the ones in which they have acted as instructors, and in lieu thereof a certificate of proficiency from the commanding officer will be given them if the latter is satisfied that it is merited; otherwise they will be examined in these subjects as well.

Whenever, in carrying out the provisions of this paragraph, it becomes necessary to utilize the services of an instructor junior in rank to the officers under instruction he shall, in the execution of his duties, be given the respect due his position.

3. The officers from whom systematic recitations are required, and who shall take the complete course, will include captains of the line of less than ten years' service as commissioned officers, and all first and second lieutenants, with the exceptions hereinafter noted.

*Exceptions.*—Graduates of the United States Military Academy at West Point; the Infantry and Cavalry School at Fort Leavenworth, Kans.; the Artillery School at Fort Monroe, Va., or the Engineer School of Application, now at Washington Barracks, D. C., may be excused from recitations in military law, international law, and field



engineering; but they will be required at the close of the term to qualify in those subjects as well as in those in which they have made systematic recitations.

Notwithstanding the exceptions herein noted, department commanders shall require either systematic recitations or qualification by examinations at the end of the school term of any officer of their commands, regardless of rank, when in their judgment such officer may be in need of instruction in the course herein prescribed.

In the formation of classes for recitations lieutenants will constitute one section and officers of higher grade another.

4. The annual period of theoretical instruction shall aggregate ninety school days between November 1 and the 30th day of the following April. Two hours per diem shall be devoted to recitations, exclusive of the time necessary for proper preparation.

#### 5. COURSE OF INSTRUCTION.

##### (a) ADMINISTRATION.

*Theoretical.*—Recitations in the U. S. Army Regulations and in general orders and circulars amendatory thereof, including: Military discipline; command; post administration; regiments—organization, instruction, and records; company administration; councils of administration; regimental, bakery, company, and mess funds; post bakeries, libraries, etc.; rosters, detachment, and daily service; honors, courtesies, and ceremonies; purchase of supplies and engagement of services; money accountability and responsibility; accounts current; public property, accountability and responsibility; boards of survey; military correspondence; orders; returns of troops; records; enlistments; Quartermaster's Department—general duties, records, returns, and reports required; Subsistence Department—general duties, ration tables, savings, sales, accounts, and returns; Pay Department—reenlistment and continuous-service pay, forfeitures and deductions, and deposits.

Particular attention will be given to the information contained in the manuals of the three departments last named; a thorough familiarity therewith will be insisted upon.

*Practical.*—Assignment to duty in turn as assistants to post staff and recruiting officers and to orderly room work with their respective company organizations for such periods as the commanding officer may deem necessary to thoroughly acquaint them with the various duties.

##### (b) DRILL REGULATIONS.

*Theoretical.*—Recitations in the prescribed manuals of the respective arms.

*Practical.*—Drill of troops—not necessarily during the term prescribed for theoretical instruction. Lieutenants shall be given occasional opportunity to act as captains, and captains as field officers at drills.

## (c) MANUAL OF GUARD DUTY.

*Theoretical.*—Recitations in the prescribed manual.

*Practical.*—Duty as officer of the day and as officer of the guard, when practicable.

## (d) SMALL-ARMS FIRING REGULATIONS.

*Theoretical.*—Recitations in the prescribed manual.

*Practical.*—Practice upon the range and in supervision of troops during the regular practice season.

## (e) TROOPS IN CAMPAIGN.

*Theoretical.*—Recitations in the prescribed manual.

## (f) MINOR TACTICS.

*Theoretical.*—Recitations in Wagner's Security and Information.

*Practical.*—Exercises in patrolling, reconnoissance, formation and use of advance and rear guards, outposts, attack and defense of convoys, etc., as frequently as possible for purposes of illustration during school term and during the season of drill and field maneuvers.

## (g) MILITARY LAW.

*Theoretical.*—Recitations in Winthrop's Abridgment of Military Law.

## (h) FIELD ENGINEERING.

*Theoretical.*—Recitations in Beach's Manual of Field Engineering.

*Practical.*—Designing and superintending the actual construction of rifle pits, shelter trenches, loopholes, obstacles, etc., as well as locating trenches with reference to configuration of the ground; making of various kinds of revetments; establishing trace and profile of field work, with reference to requirements of defilade; extending and superintending working parties as frequently as possible for purposes of illustration during school term and during the season of field maneuvers; construction of models of various kinds of works to scale in clay or sand.

## (i) MILITARY TOPOGRAPHY AND SKETCHING.

*Theoretical.*—Recitations in Root's Military Topography and Sketching, as follows: Chapters I, II, III, V, XI to middle of page 170; from "pacing, on page 257 to bottom of page 286; Chapter XXII to bottom of page 312; Chapter XXIV."

*Practical.*—Exercises in measuring lines with chains and tapes; ranging out lines; measuring angles with box and prismatic compasses; use of cavalry sketching case on foot and mounted in road sketching; keeping of notes and map drawing.

(j) INTERNATIONAL LAW.

*Theoretical.*—Recitations in Davis's International Law.

(k) HIPPOLOGY (FOR ALL OFFICERS).

*Theoretical.*—Recitations in Carter's Horses, Saddles, and Bridles (second edition).

*Practical.*—At posts where cavalry or field artillery is stationed—stable management and horseshoeing; examination of horses for age; conformation and soundness.

(l) METHODS, MATERIALS, AND IMPLEMENTS NECESSARY TO COAST DEFENSE (FOR OFFICERS OF COAST ARTILLERY COMPANIES).

*Theoretical.*—General knowledge of guns, carriages, sights, quadrants, powders, fuses, and projectiles.

Text-books: Ordnance and Gunnery, Bruff; Artillery Circular I, series 1893; Drill Regulations for Coast Artillery; Handbook of Sights for Cannon, Ordnance Department.

Thorough knowledge of exterior ballistics so far as relates to velocities and pressures; construction and use of range tables.

Text-books: Ingalls's Handbook on Ballistics; Artillery Circulars M and N.

Construction and use of gun commanders' range scales, difference charts, and platting boards.

Text-book: Drill Regulations for Coast Artillery.

Principles of construction, use, and adjustment of position finders and other instruments connected with fire control and direction.

Text-books: Artillery Note, No. 3; The Lewis Range Finder, Capt. E. W. Hubbard, Artillery Corps.

General principles of construction, test, and operation of telephones, telegraphs, and lines of communications.

Text-books: Artillery Circular C; Handbook for use of Electricians; Telephones, Capt. S. Reber, Signal Corps, and publication about to be issued by the Signal Corps.

General knowledge of the construction, use, and care of such electrical apparatus as is usually found at artillery posts.

Text-books: Handbook for use of Electricians; Artillery Note, No. 4; Torpedo Manual.

Elementary cordage, setting up and rigging gins and shears; the care and use of hydraulic jacks.

Text-books: Tidball's Manual; Best's Gunner's Manual.

Instruction in submarine mining as outlined in General Orders, No. 51, Adjutant-General's Office, 1902.

*Practical.*—As above by drills and practical work so far as the armament and equipment of the post will permit.

Lieutenants to be occasionally assigned to duty as battery commanders and captains as fire commanders. At posts equipped with electrical or other power plants officers will from time to time be assigned to duty as assistants to the officer in charge thereof.

It is to be understood that nothing in this order relieves artillery district commanders or other officers charged, under existing orders or regulations, with the duty of securing efficiency in theoretical and practical instruction in their commands from their present full responsibility therefor.

6. Allotment of time in hours for recitation in the several subjects.

FIRST YEAR.

	Officers of—			
	Cavalry.	Field artillery.	Coast artillery.	Infantry
Administration (complete).....	35	35	35	35
Drill regulations (complete).....	35	35	<sup>a</sup> 20	35
Manual of guard duty (complete).....	6	6	6	6
Small-arms' firing regulations (complete).....	18	18	18	18
Minor tactics (partial).....	15	15	15	15
Military law (partial).....	15	15	15	15
Field engineering (partial).....	15	15	.....	15
Military topography and sketching (partial).....	<sup>b</sup> 15	15	15	15
International law (partial).....	15	15	15	15
Hippology (partial).....	11	11	11	11
Methods, materials, and implements necessary to coast defense (partial).....	.....	.....	30	.....
Total.....	180	180	180	180

SECOND YEAR.

General review of administration.....	5	5	5	5
General review of drill regulations.....	5	5	5	5
General review of manual of guard duty.....	1	1	1	1
General review of small-arms' firing regulations.....	2	2	2	2
Troops in campaign (complete).....	18	18	18	18
Completion of minor tactics.....	25	25	25	25
Completion of military law.....	25	25	25	25
Completion of field engineering.....	25	25	.....	25
Completion of military topography and sketching <sup>b</sup> .....	25	25	25	25
Completion of international law.....	25	25	25	25
Completion of hippology.....	24	24	14	24
Completion of methods, materials, and implements necessary to coast defense.....	.....	.....	35	.....
Total.....	180	180	180	180

<sup>a</sup>To include school of battery.

<sup>b</sup>Including practical work.

Should it be found necessary in certain instances to impart instruction of a more elementary character than here outlined, post commanders are directed to form classes therefor. The hours necessary for recitations of these classes shall be in addition to the hours herein directed for the regular prescribed course, but shall be within the school term.

## GENERAL INSTRUCTIONS.

7. Officers who are temporarily detached from their proper posts or stations will be expected to so prepare themselves in the subjects herein prescribed for the post school instruction of officers that, upon rejoining at any time during the school term, they will be able to take up the course and proceed with the regular classes. If for any reason an officer joining a post during the school term lacks such necessary preparation, he will be excused from participation in the prescribed course until the beginning of the following term.

8. At the close of each school term every commanding officer will appoint a board of competent officers, senior in rank to those undergoing examination, to examine each officer as to his proficiency in the subjects completed during the course. Whenever this board certifies to the proficiency of an officer in any subject and the proceedings are approved by the commanding officer a statement to that effect shall be entered in the post records, a copy of which shall be furnished to the Adjutant-General of the Army and to the officer concerned, and which shall entitle him thereafter to be excused from further recitation in that particular subject. Whenever the number of officers at any garrison is so small that a sufficient number can not be secured to conduct the examination of officers who have pursued any portion of the courses prescribed for their instruction, department commanders are authorized to order officers to adjacent posts for examination, or to order properly qualified officers from adjacent posts to complete the number required for an examining board, which shall in all cases consist of three members.

In case of officers who fail to acquire a proper degree of efficiency in any subject, report will be made to the Adjutant-General of the Army for note upon their efficiency records and they will be required to repeat the course at the next annual term of theoretical instruction. In event of a second failure, special report will be made by the commanding officer with a view to its consideration by the board which may be thereafter designated to examine them as to their fitness for promotion.

9. Those officers who exhibit the most aptitude and intelligence in the course of instruction pursued will be reported to their respective regimental or corps commanders (in case of artillery officers through artillery district commanders to the Chief of Artillery) with a view to their detail at the general service and staff college at Fort Leavenworth, Kans., for further instruction.

10. When an officer is transferred to a new station his record as to the portion of the prescribed course completed and of proficiency or deficiency therein shall be furnished through his regimental or artillery district commander to his new post commander.

11. This order is issued with a view to systematizing the instruction of officers of the line of the Army during a limited period of the year in accordance with the general scheme of progressive instruction, and is in nowise intended to limit the authority of department commanders to require additional work during the portion of the year herein only partially occupied. The remaining portion of the year will be further utilized by such commanders to the fullest advantage in the practical instruction of their commands.

By command of Lieutenant-General Miles:

WM. H. CARTER,  
*Brigadier-General, U. S. Army,*  
*Acting Adjutant-General.*



## APPENDIX K.

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### HEADQUARTERS DEPARTMENT OF THE MISSOURI,

*Omaha, Nebr., October 31, 1902.*

SIR: I have the honor to submit the following report of the concentration of troops at Fort Riley, Kans., and of the encampment and maneuvers held there during the latter part of September and the first part of the current month.

When definite orders were received in the latter part of August prescribing that maneuvers be held, I convened a board of officers to meet in Omaha, Nebr., to prepare plans for utilizing the period of the encampment to the best practicable advantage, and especially to prepare the tactical problems which it was desired to have executed. This board worked zealously, and its labors met with my entire approval. I have previously transmitted to you a report rendered by the board, dated September 4.

The solution of both strategical problems and tactical exercises naturally presented itself to the board for consideration. It was wisely decided to be impracticable, at least at this time, to enter into the question of strategy, which would require an extended theater of operations as well as the expenditure of a greater amount of money than was available, and, to be satisfactory, would also require a larger number of troops than were ordered to participate. Moreover, that part of the National Guard which had decided to take part was not expected to arrive until a week or later after the regular forces had reached camp. The board therefore decided to eliminate the subject of strategy, and to confine its recommendations to tactical problems and such instruction as time would permit in camping, camp sanitation, methods of the supply departments, field engineering, including field intrenchments, pontoon and spar bridge building, the duties of the Signal Corps, etc. As the past demands of our service have generally required that companies of the same regiment be widely scattered, thus making it usually impracticable to give instruction in regimental drill, it was decided to hold such drills in the early part of the encampment and follow them by maneuvers of the brigades and the division. This was done with decided profit, especially to the senior officers.

Where the distances were not too great the troops in the Department of the Missouri were ordered to proceed to Fort Riley by march-



ing. Those thus included were the headquarters, band, and two battalions, Twenty-second Infantry, from Fort Crook, Nebr., 197 miles; the headquarters and two battalions, Sixth Infantry, with the First Battalion of Engineers, the Second Squadron, Fourth Cavalry, and the Twenty-eighth Battery (Mountain), Field Artillery, from Fort Leavenworth, Kans., a distance of about 140 miles. The lack of sufficient wagon transportation caused the headquarters, band, and one battalion, Sixth Infantry, to proceed by rail. On account of the great distance of the following-named posts from Fort Riley, as well as of the limited time, the troops brought from Forts Logan H. Roots, Ark., and Reno, and Sill, Okla., were ordered to move by rail. The First Squadron of the Eighth Cavalry, however, from the latter post, returned after the encampment to its station by marching, as did the troops from Fort Crook, and also from Fort Leavenworth, except the headquarters and band, Sixth Infantry, and the dismounted portion of the First Battalion of Engineers.

As it was early decided to divide the command from time to time into two forces to represent opposing detachments in contact problems, the troops were directed to take with them to Fort Riley both blue (undress) and khaki uniforms, to enable them to represent either the "blues" or "browns" as circumstances might require. The march to Riley offered an excellent opportunity for certain training, and the organizations which were directed to proceed overland were instructed that marches would be conducted as if in the enemy's country, and instruction and exercises given in all the ordinary measures for the safety of the command, such as advance and rear guard, patrols, flankers, and at night, outposts, etc. An itinerary and a map of the route traveled was also prescribed. Commanding officers of troops moving by rail were directed to give careful attention to entraining and detraining their commands. Reports received indicate that material instruction was given on the march in the several commands. The map submitted by Second Lieut. N. E. Bower, Corps of Engineers, U. S. Army, of the route taken by the First Battalion of Engineers, deserves particular mention for the care and detail with which it was prepared.

The 20th of September found the several organizations detailed from the regular establishment to participate in the maneuvers at Fort Riley, and an order was issued announcing the following organizations:

*First Brigade.*—Sixth United States Infantry, Eighteenth United States Infantry, Twenty-second United States Infantry, Brig. Gen. William A. Kobbé, U. S. Army, commanding.

*Second Brigade.*—The organizations composing this brigade and the name of the general commanding were not announced until the arrival of the troops from the State of Kansas, when the First and

Second regiments of infantry of the National Guard from that State were assigned and the command given to Brig. Gen. J. W. F. Hughes of the same guard.

*Divisional Cavalry.*—First and Second squadrons, Fourth United States Cavalry, and First Squadron, Eighth United States Cavalry, Col. C. C. Carr, Fourth United States Cavalry, commanding.

*Divisional artillery.*—The Sixth, Seventh, Nineteenth, Twentieth, and Twenty-eighth Field Batteries, United States Army, and two skeleton batteries, Kansas National Guard, Col. George B. Rodney, Artillery Corps, U. S. Army, commanding.

*Engineers.*—First Battalion of Engineers, United States Army, Maj. Smith S. Leach, Corps of Engineers, commanding.

The Hospital Corps had one field hospital and one ambulance company in addition to the medical attendance assigned to the several organizations, and the Signal Corps one maneuver field company.

Proper flags and pennants were prescribed to designate division and brigade headquarters, the designs for which had been approved by the War Department.

It was first intended to divide the regular regiments of infantry between the First and Second Brigades, and brigade the volunteer regiments with them. As the Kansas officers, however, expressed a strong desire to retain their brigade organization, their wish was complied with. The "Provisional Battalion" from Colorado requested to be assigned to the First Brigade, which was done.

The camp was pitched on "Pawnee Flat," near the post, and had good railroad terminal facilities. The ground chosen is gently rolling and has fine natural drainage. This proved to be a very important consideration, for on several days during the encampment the rain fell continuously, but the water ran off rapidly and the ground dried quickly. The necessary pipes were laid to bring water from the post reservoir for camp purposes, and a sufficient and wholesome supply was thus secured.

The chief quartermaster, Capt. C. B. Baker, the chief commissary, Capt. Hugh J. Gallagher, the chief surgeon, Lieut. Col. John Van R. Hoff, and the chief signal officer, Maj. George P. Scriven, were on the ground for some days before the beginning of the encampment, and made all necessary preliminary arrangements pertaining to their respective departments in a most satisfactory manner. Major Scriven was unfortunately painfully injured by the premature bursting of a bomb, sent up to indicate the time of day, and was worthily succeeded by Capt. Edward B. Ives, Signal Corps, U. S. Army.

Carefully drawn orders prescribing camp sanitation were prepared before the date set for the encampment, and no effort was omitted to impress upon all the importance of this subject. In order to avoid detailing men away from their companies to act as police parties

throughout the day, the entire command was turned out morning and afternoon to police the camp grounds. In this way the camps were made clean in a few minutes and the companies were kept nearly at their full strength for field exercises.

The question of the care of sinks was given much thought, and as it was not desired by the War Department to give this camp the permanence of form assigned to camps occupied in the latter part of 1898 and in 1899, I decided to adopt the pit sink, in which morning and evening a sufficient quantity of lime was thrown, then a layer of straw about 3 inches thick, on which crude petroleum was poured and ignited; after this, such earth as was found necessary was spread over the bottom of the sink. This method, if rigidly enforced, produces excellent results, and can be applied in almost any camp in the field, and thus officers and men had experience in handling this matter in a practicable way. Carefully prescribed instructions for disposing of kitchen refuse and the contents of slop barrels were also given. A good result of care in above matters is shown in the excellent health enjoyed by the command.

In addition to the two daily inspections prescribed in orders from these headquarters to be made by company and battalion commanders, brigade commanders were instructed to cause further inspections to be made by their respective inspectors-general and chief surgeons, and reports were submitted directly to division headquarters by Lieut. Col. S. C. Mills, inspector-general, who made frequent tours of the camp and who was authorized to give orders on the spot for such work as seemed necessary to enforce my orders for camp sanitation. As a result of these inspections, Lieutenant-Colonel Mills states that—

Under all conditions of weather, I regard the general sanitation, police, and discipline of the camp as excellent; there was an earnest desire on the part of all organizations to make the camp a success and to carry out to the letter the orders relative to the care of the camp. The troops of the National Guard from Kansas and Colorado seemed bent upon showing that the regulars could not best them in camp police and sanitation.

He is of the opinion that the advantages of locating sinks and company kitchens at opposite ends of the company streets were observed and appreciated by all before the camp was over. He also believes that in semipermanent camps the best method to be observed in company lavations is to place the necessary water in galvanized-iron cans kept midway between the sink and the end of the company street, and to require all men to wash in that vicinity, the dirty water being thrown on the ground near by.

In connection with the burning of hay and crude petroleum in the pit sinks, he states the system worked well and that he has never before noticed so little odor in a tour of camp sinks, and that there

was also a noticeable absence of flies. The Inspector-General further calls attention to the necessity for careful drill in the estimation of distances, and states there was a great variety of opinion among officers of the same organizations in judging distance.

In the matter of dress it was prescribed that when outside of their tents officers and enlisted men appear at all times in proper uniform, and that when the blouse was worn it be invariably buttoned throughout. Except while representing a "blue" or "brown" force, regimental commanders and commanding officers of separate battalions were authorized to prescribe the dress for their respective commands, which, however, would be uniform throughout the particular command.

A list of calls were prepared and observed by the entire command.

In his interesting report the chief surgeon, Lieut. Col. John Van R. Hoff, says:

The regulations governing the organization and equipment of the several medical field units having been promulgated just previous to the time the autumn maneuvers were ordered, the Surgeon-General determined to take advantage of the opportunity to submit the new organizations to as complete a trial as the conditions would permit. \* \* \* I was directed to at once make requisition upon the Quartermaster, Ordnance, and Medical departments for the various materials needed for one field hospital and one ambulance company for duty with the maneuver division.

He says it should be understood that a field hospital for a division is intended to meet the requirements of 6,000 men for three months, including the replenishment of the regimental field hospitals, and the chesting of this material so that it would be easy of transportation and access was no small undertaking.

Assuming that the strength of the maneuver division would be about 5,500 men, Lieutenant-Colonel Hoff thought a bed capacity of something over 200, or 4 per cent, should be provided for the sick. With this end in view, and at the same time to complete the picture of medical organization, the post hospital, Fort Riley, was designated the base hospital, and tent wards capable of accommodating 100 patients were pitched. The field hospital was organized to bed 108 patients, and in emergency double this number could have been provided for by extending tent flies and putting half the patients on bed sacks. The regiments and battalions had field hospitals with a combined bed capacity of 54. Thus the medical department was prepared with a grand total of 256 beds, exclusive of two 12-bed regimental hospitals loaned to the Kansas National Guard, and 4 beds brought in by the Colorado battalion. Thus it will be seen that the Department was fully prepared to meet any probable demands that would be made upon it.

The chief surgeon says:

To keep the field hospitals mobile, and enable them to take part in the hypothetical functions of the maneuvers those pertaining to the regiments were used simply for observation of patients who, if sick twenty-four hours, were sent to the division

field hospital, and after twenty-four hours there to the base hospital. Upon reaching the base hospital, if the ailment was of such a character as to indicate a disability which would last beyond the period of the encampment the man was returned to his permanent station. By this arrangement the sick were never permitted to remain with the troops, and I doubt if many knew that the medical department was caring for upward of 100 patients daily—small as the number was comparatively.

It was ordered that during field exercises when an umpire decided that any men of a command were wounded he would, when practicable, hand to the company commander a diagnosis tag for each with directions that those who were thus tagged would fall out and be taken back to the regimental aid station in the manner described on the tag. At the aid station they were to be dressed and thence taken by men of the Hospital Corps to the ambulance station, from which, whenever the case required, the wounded man was to be transported in the ambulance to the dressing station, and thence to the field hospital. Medical officers were required to keep a record of the wounded passing through the several stations and report the same to division headquarters through the division surgeon. Company commanders were required to forward a list of casualties. Thus a most valuable object lesson in the care, removal, and report of the wounded was given both to the medical department and to the line.

While Lieutenant-Colonel Hoff thinks the camp sinks were usually kept in good condition, he is of the opinion that the use of the pit sink is a mistake. He presents his views in the following words:

The sanitary arrangements of the camp were primitive, but the conservancy was so excellently carried out that the requirements of the present occasion were well met. I do not, however, believe that in view of our experience during the Spanish-American war we can afford to continue the use of pit sinks in model fixed camp, no matter how successfully they were used at Camp Root, where all the conditions were most favorable to a perfect conservancy.

The chief surgeon expresses the opinion that no command was ever provided with a more thoroughly organized and supplied medical department than was the maneuver division at Camp Root. Officers and men vied to promote its efficiency, and he particularly invites attention to the excellent work of two assistant surgeons—Capt. F. P. Reynolds, commanding the division field hospital, and Capt. J. S. Wilson, commanding the ambulance company. Maj. George E. Bushnell and H. P. Birmingham, brigade surgeons, First and Second brigades, rendered valuable service.

I am glad of this opportunity to express my appreciation of the good work done by the medical department.

Capt. C. B. Baker, in his report as chief quartermaster, expresses the belief that if the maneuvers are to be continued from year to year the water system should be put in in a permanent manner and the pipe sunk to a sufficient depth to prevent damage from frost or other causes. This year it was laid hurriedly and only a sufficient

depth to prevent injury from passing wagons or animals, which required it all to be taken up upon the completion of the encampment, at considerable expense. The chief quartermaster is also of the opinion that if the "Pawnee Flats" are to be used annually for a camping ground a permanent sewer system should be established. Proper sewerage and sinks of a semipermanent nature undoubtedly have their advantage, but they also have the disadvantage of materially diminishing instruction to officers and men in camp sanitation as it will usually have to be applied in case of war. Captain Baker states the camp garbage was carried to a point about a mile and a half distant from camp, emptied into deep trenches, and immediately covered. He also says that owing to the almost continuous rains and the lack of necessary facilities it was found impracticable to burn it. He recommends a crematory plant be provided for future use. In this connection it may be stated that such a plant has already been recommended for Fort Riley, and if it be authorized its capacity should be such as to dispose of the garbage of future maneuver camps as well as of the post.

He further recommends that "in case of future encampments a temporary depot under canvas be established, entirely separate from the post of Fort Riley, for furnishing and handling supplies and stores intended for the use of the troops participating in the maneuvers," and "that all business of the camp and the post be kept entirely distinct," in which recommendations I concur.

With my sanction Captain Baker issued about 95,000 pounds of hay in lieu of straw for bedding for the men. This was necessary to the health of the command, in view of the exceedingly wet and inclement weather. If future encampments are to be held late in the fall, it is believed organizations might bring with them to advantage bed sacks.

In the earlier part of the encampment the supply of riding animals being inadequate the necessities of the medical department were met in part by mounting hospital stewards and orderlies on mules taken from the pack train. The aggregate number of animals in the camp was 1,166.

Arrangements were made with the railroad officials of the Union Pacific Railroad whereby new sidings were put in at Pawnee Flats, to the great convenience of the camp.

The hospital tents for the field and base hospital were floored as well as the tents of the field depot commissary; other tents were without floors.

Under the direction of the chief quartermaster a bureau of information was organized for the convenience of visitors. This bureau also had charge of receiving and shipping the baggage belonging to visiting officers from the National Guard, and one member of the detail

met all trains arriving in order to look after the comfort of incoming visitors.

Incoming organizations were met by a representative of the chief quartermaster and conducted to the camp site assigned, and the commanding officer was furnished with a memorandum informing him as to all preparations made, and as to the point from which and the manner whereby all supplies required could be obtained, both from the quartermaster and commissary departments. As I have stated above, the manner in which these departments were conducted under Captain Baker and Captain Gallagher were very satisfactory.

For the return movement arrangements were made by the quartermaster's department for necessary freight and passenger equipment to be in position on the siding at "Pawnee Flats" on October 9, and a diagram was prepared showing the various locations on the side tracks of each train, and indicating the troops to embark thereon, and the hour scheduled for departure.

Upon the completion of the maneuvers, Captain Baker states it was found practicable to turn in all property for storage at the post, pay all accounts in form for settlement, and conclude all business connected with the camp, including the policing of the ground, by the afternoon of October 13.

I am of the opinion that a storehouse of suitable dimensions should be built at Fort Riley for storing from year to year property sent there for the exclusive use of the maneuver encampment.

The work in the subsistence department was well thought out, the necessary supplies reaching the troops promptly, and they were generally satisfactory.

In order to accommodate the National Guard officers who attended without troops a wall tent was assigned to each, and the chief commissary procured and had erected a large mess tent, capable of seating about 200 persons. With my staff I procured my meals at the same mess and am pleased to say it was satisfactory. This mess, although under the general control of a commissary officer, was in the immediate charge of a hired caterer who did very well, but I concur in the opinion expressed in a report submitted upon the termination of the camp by the chief commissary that hereafter the subsistence department conduct the mess for officers and visitors at headquarters without the intervention of a caterer, the quartermaster department supplying the necessary ranges, cooking utensils, and tableware, leaving to the former department to hire the steward, cooks, waiters, and supply the food. In view of the fact that even a larger number of National Guard officers will probably hereafter attend these maneuvers, if the War Department decides to hold them, the chief commissary is further of the opinion that to get the best results when an appropriation is made by Congress providing for these encampments, one item should

cover the employment of cooks, stewards, and waiters. In this way officers and visitors living at headquarters can be supplied with wholesome food at reasonable rates; in fact, at the actual cost of the food itself, increased by the cost of perhaps a few other minor necessaries and paying for breakages and loss of tableware.

The Regular Army ration was supplied to the National Guard from Kansas and Colorado, for which they paid cost price. It seems to have proved satisfactory.

One evening was devoted to instruction of officers of the National Guard regarding the workings of the subsistence department, and it was intended to give on another night practical instruction in rendering accounts and returns, but bad weather interfered to prevent it. It is thought such instruction should be made an important feature in all future encampments.

The work of the Signal Corps is to be commended. The different headquarters were connected by telephone. Practical illustrations of the use of the searchlight were given, and information and orders were transmitted on the field by means of the flag and hastily constructed telegraph lines, the material for which was conveyed in wagons that followed the different columns in the several exercises and kept in close touch with all, except rapidly moving cavalry and field batteries. The plant for the field searchlight was also used to furnish power for a number of incandescent lights around division headquarters, and especially in the large mess tent, in which several hundred officers were assembled upon a number of evenings to listen to the reports of the umpires and discussions upon the exercises which had taken place, and on one occasion to hear an excellent lecture on strategy by Col. A. L. Wagner, assistant adjutant-general. If in future one or more carefully prepared lectures upon military topics be deemed advisable it may be found useful to employ an electric stereopticon, such as is used in the several departments of instruction at the United States Military Academy. The improved methods for facilitating communication between different parts of an army were well illustrated by the Signal Corps, and in future maneuvers it will be well to afford all reasonable opportunities to show what can be done in this line and to enable desired experiments to be tested.

The command was fortunate in having a battalion of engineers, and the latter was equally fortunate in being given an opportunity to practically apply much that they had learned only in books. The practical examples given in intrenching and in building spar and pontoon bridges were most useful. Greater experience in the construction and use of a pontoon bridge was undoubtedly had at Fort Riley than has been seen in this country since the close of the civil war. The Kansas River, swollen by recent heavy rains, had a swift current, and could be crossed only by bridging. A pontoon bridge was constructed,



and three regiments and one battalion of infantry, three squadrons of cavalry, and two batteries field artillery were passed over in forty-five minutes. Engineers, infantry, cavalry, and artillery all alike profited by this experience. On another occasion it is suggested a tactical problem be prescribed to illustrate the forcing of a passage of a river in the face of the enemy by means of pontoon bridges. As the Fort Riley Reservation is of limited extent, and no very satisfactory point can be found along the river where the reservation covers both sides for the execution of such a problem, it will be well to select some site a few miles from the fort and purchase the privilege from the surrounding farmers to enter on their fields for the exercise. This doubtless can be done very cheaply.

In connection with the size of the Fort Riley Reservation, about 20,000 acres, I desire to say it is doubtful if more than 10,000 men can be concentrated there for maneuvers to advantage. As experience is gained in these maneuvers and public interest increases, either money must be appropriated by Congress to hire the privilege of entering upon farms for conducting field exercises, or the Government must arrange to hold army maneuvers on some of its public lands on the plains or near the slopes of the Rocky Mountains. We should look to the time when two bodies of men, each representing an army corps of 25,000 or 30,000 men, should approach each other from a starting distance of about 150 miles or more. This would give an opportunity for a study and illustration of strategy in the earlier part of the movement, to be followed later on by a like experience in battle tactics.

The reports of the umpires dwelt on several occasions upon evident defects in our organization and equipment, and I deem the following of sufficient importance for mention:

The necessities for mounted orderlies in regiments of infantry is evident, even for administration in camp and garrison, and this need is made greater in action, because under modern battle conditions a regiment at full war strength covers, when deployed, such an extent of territory that the commanding officer can not in the crisis of battle impress his will upon the battalion and company commanders without the liberal use of mounted men. Moreover, the colonel and his staff, the lieutenant-colonel, battalion commanders, and their staff officers must on occasions dismount on the battlefield and should have mounted orderlies to take their horses to a place of safety and return with them when wanted. If this statement of the case be correct, as I think must be acknowledged, it becomes only a question as to whether the necessary mounted orderlies be detached from troops of cavalry organized and maintained at large expense for an entirely different purpose, or if a certain number of mounted men be made a part of the organization of an infantry regiment. In addition to the duties enumerated

above, they would be available in extreme cases as mounted scouts and patrols. Eighteen to each regiment will probably be required.

The importance of clothing troops in the field with the most non-conspicuous uniform was made very apparent, and it was observed that under strong sunlight the scabbards of swords and sabers frequently indicated the position of a command that might otherwise have been unobserved. It is recommended that the scabbards of cavalry sabers be given a dull or bronze finish and that when in the field officers and noncommissioned staff officers of infantry discard the swords and carry only the revolver. Staff officers, company commanders, and all senior officers should carry field glasses.

Capt. Lawson M. Fuller, ordnance officer, accompanied the troops on marches, whenever opportunity offered, with a view of determining defects in the equipments issued by the Ordnance Department, and he submitted a report on this subject, under date of the 6th instant, which has already been forwarded to the Chief of Ordnance, through your office. Among other matters covered, he is of the opinion that improvements can be made in the following, viz: The new wind-gauge sight for the carbine, the cavalry link, curb strap, manner of marking packing boxes containing ordnance stores, and snap for officer's saber belt; and he suggests that the Ordnance Department have issued each year a price list of stores for sale or, when not for sale, the prices at which articles lost or destroyed are to be charged on muster and pay roll, and that when equipments are sent out from any of the several arsenals differing in the slightest degree from the regular output a printed or typewritten circular be sent with each explaining the difference and reason for the change. I concur in these suggestions.

The opinion seemed to be general among those who attended the maneuvers that, notwithstanding the inclement weather during part of the time, the camp and the field exercises were a success. The value of such concentrations and maneuverings can not be overestimated, either to the regular forces or to the National Guard, as it gives to both an opportunity for observing the appearance and formation of a division under various conditions, and affords to officers of the several arms of the service a chance for seeing the evolutions and capabilities of the other arms, and enables them to enlarge their circle of military acquaintanceship, which can rarely be done without absorbing new ideas upon military subjects. During the exercises under discussion young officers had constantly impressed upon them the value of studying the terrain with a view to protecting their commands by the accidents of the ground and of seizing advantageous positions. The lessons learned in this connection at Fort Riley may be the means of saving many lives in future hostilities. The power of modern weapons was well illustrated and accentuated by each opponent maneuvering for position.

Col. A. L. Wagner, chief umpire, performed his duties in a highly

satisfactory manner. His comments on the problems executed and his recommendations for future field exercises, written in his usual clear and forcible style, will be submitted in print. As a number of officers of the National Guard who attended the encampment expressed a desire to be furnished with a copy of Colonel Wagner's report, and as it will undoubtedly be interesting and instructive to officers in the regular service, I have, with the verbal approval of the Assistant Secretary of War, directed that 300 copies be printed, a number of which will be forwarded as soon as practicable.

If the National Guard attends hereafter its organizations should, if practicable, be in camp not less than ten days. As only two States sent troops, a number of officers attended who were cared for, as above stated, at division headquarters. Such officers can probably be taken care of conveniently in the future, except in the matter of providing mounts. To dismount troops of cavalry for this purpose is objectionable. If there are to be several camps for maneuver purposes it is thought two official representatives from the National Guard from any State will suffice for each camp, with perhaps an additional representative for each 3,000 men in the National Guard of a State, thus giving to those with a considerable force a greater number of official representatives. In selecting these representatives the best results can probably be obtained if regimental officers are principally chosen.

It is recommended a number of specially selected field officers for duty as umpires be made by the War Department, and that they be ordered to report to the commanding general of the maneuver division several days before the commencement of the field exercises, with a view to studying the terrain, the necessary regulations, and to permit an exchange of ideas.

The spirit shown throughout the command was most commendable; officers and men alike united in their efforts to make the maneuvers a success. I desire to make special mention of the valuable work done by Brig. Gen. William A. Kobbé, upon whom devolved in a large measure the practical application and solution of the tactical problems prescribed. Maj. John G. D. Knight, Corps of Engineers, engineer officer, served principally as an umpire, in which capacity he rendered excellent service. My thanks are due and cordially given to Maj. E. J. McClernand, adjutant-general, Capt. William M. Wright, Horace M. Reeve, and First Lieut. Van Leer Willis, aids-de-camp, who labored zealously and intelligently in their several duties.

Very respectfully,

J. C. BATES,

*Major-General, U. S. Army, Commanding.*

The ADJUTANT-GENERAL UNITED STATES ARMY,

*Washington, D. C.*

## APPENDIX L.

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### RESOLUTIONS ADOPTED BY OFFICERS OF THE NATIONAL GUARD OF VARIOUS STATES AND TERRITORIES.

CAMP ROOT, FORT RILEY, KANS., *October 7, 1902.*

Whereas we, the undersigned officers of the National Guard of the various States and Territories of the Union, detailed by the governors of the respective States and Territories (twenty-one of which are here represented), in compliance with the request of the honorable Secretary of War, to witness the maneuvers of the Regular Army and National-Guard forces, assembled in camp of instruction at Camp Root, Fort Riley, Kans., having observed the different military problems daily: Therefore, be it

*Resolved*, First. That we desire to thank the honorable Secretary of War for permitting us to witness the maneuvers, from which we have derived so much benefit.

Second. That we desire to express our thanks to Maj. Gen. John C. Bates, U. S. Army, commander of the maneuver division, and his staff for their unflinching courtesies to us at all times, thus enabling us to perform our tours of duty most satisfactorily.

Third. That we desire to thank Col. Arthur L. Wagner, Assistant Adjutant-General, U. S. Army, chief umpire, for the instruction he has given us, and for his able discussion of the various problems, and for his most practical and brilliant lecture on military strategy.

Fourth. We desire further to commend the policy of the National Government, as indicated by this camp of instruction, and for its effort to bring in closer contact the Regular Army and National Guard forces; and we trust that these joint maneuvers may be continued annually.

Fifth. That these resolutions be engrossed, one copy to be forwarded to the honorable Secretary of War, one to Maj. Gen. John C. Bates, U. S. Army, and one to Col. Arthur L. Wagner, Assistant Adjutant-General, U. S. Army.

John J. Saunders, major-general, Maryland; William H. Stacy, major-general, Texas; P. H. Barry, brigadier-general, Nebraska; John A. Wiley, brigadier-general, Pennsylvania; Q. O'M. Gillmore, brigadier-general, New Jersey;

E. S. Miller, brigadier-general, North Dakota; George H. Brown, brigadier-general, Michigan; Herbert S. Tanner, brigadier-general, Rhode Island; J. H. Whitney, brigadier-general, Massachusetts; William F. McGurnin, colonel Second Michigan; H. E. Mead, colonel Third Infantry, Ohio; George W. McCoy, colonel, Indiana; James F. Fee, lieutenant-colonel, Indiana; S. A. Bowman, lieutenant-colonel, Indiana; Usher Thomason, colonel, Georgia; E. D. Huguenin, colonel Second Infantry, Georgia; I. E. Webster, colonel Second Infantry, Florida; Charles K. Darling, colonel Sixth Massachusetts; H. L. Archer, colonel First Infantry, Nebraska; Henry Hutchings, colonel First Infantry, Texas; C. B. Young, colonel, Illinois; B. C. Tilghman, lieutenant-colonel Third Infantry, Pennsylvania; Bryce D. Armour, major and assistant inspector-general, Rhode Island; J. H. Dockweiler, major and engineer officer, First Brigade, California; O. C. Drew, major and assistant adjutant-general, Texas; Joseph R. Harrison; major, Third Infantry, Indiana; A. L. Kuhlman, major, Third Infantry, Indiana; F. E. Stevenson, major, artillery battalion, Indiana; P. J. H. Farrell, major and surgeon, Illinois; De Witt Clinton Falls, captain and adjutant, Seventh Regiment, New York; S. E. Yoder, captain, Battery A, Nebraska; W. L. Holland, captain, South Omaha Cavalry Troop, Nebraska; W. R. Brooks, captain, engineer signal corps, Nebraska; E. H. Jayne, major, First Infantry, Oklahoma Territory; Frederick Gilkyson, major and assistant adjutant-general, New Jersey; William J. Coleman, major, First Infantry, Indiana; John Landstreet, captain, Virginia.

## APPENDIX M.

### MEMORANDUM FOR THE QUARTERMASTER-GENERAL.

WAR DEPARTMENT,  
*Washington, October 18, 1902.*

I am considering the expediency of asking Congress to authorize the Department to furnish officers' quarters with the heavy furniture, such as tables, bedsteads, bureaus, etc., and to charge the officers with a small rental for the use of the articles furnished. It is clear that the officer would save by this arrangement in three ways:

1. The interest on the money which he now expends for furniture.
2. The great cost of transportation of these heavy articles when he is ordered from one station to another.
3. The rapid depreciation of the articles, caused both by use and by transportation.

On the other hand, it is clear that the Government, buying the furniture in large quantities, could get it at a very much smaller first cost than the officers can, and that the furniture remaining permanently in the same quarters would depreciate much less rapidly than when it is moved about from one post to another.

I have an impression that, considering the great saving to the officers and the smaller expense to the United States, the officers could well afford to pay a rental which would constitute a sufficient renewal fund in the hands of the Government and would ultimately reimburse the Government for the principal, so that the great expense and frequent hardship to our officers would be prevented without ultimate loss to the Treasury.

In order to test these views, I should be glad to have all the information practicable bearing upon the subject, and particularly upon the following points:

- (1) A statement of the different articles of furniture which you think could be advantageously supplied in this way for married officers' quarters and for bachelor quarters, respectively.
- (2) The difference between the average cost of such furniture when purchased by an officer individually and what the same furniture would cost if purchased by the Quartermaster's Department.
- (3) An estimate of the annual average depreciation of officers' furniture under the present conditions of frequent removals from post to post, and an estimate of the probable annual depreciation of the same furniture if furnished by the Government and permitted to remain in the same quarters.
- (4) Such facts as you can obtain tending to show the cost of trans-

portation of furniture to officers when ordered from post to post under the present system.

(5) An expression of your views as to the total first outlay which would be required to inaugurate the new system, the rentals which officers could reasonably be expected to pay, and the adequacy of such rentals to create a renewal fund and ultimately retire the principal of the original outlay.

ELIHU ROOT,  
*Secretary of War.*

WAR DEPARTMENT,  
QUARTERMASTER-GENERAL'S OFFICE,  
*Washington, November 5, 1902.*

The following memorandum is submitted in reply to inquiries contained in accompanying memorandum of the Secretary of War:

First. Articles of furniture thought to be necessary for married officers' and bachelor officers' quarters.

The following is a list of furniture which it is thought covers all the articles which should be supplied by the Government. These articles comprise the bulky and heavy furniture which every married officer must have and covers the essential articles required for kitchen, dining room, parlor, sitting room and hall, two bedrooms, and one servants' bedroom, for which two beds are provided:

Articles.	Cost if purchased by Quartermaster's Department.	Cost if purchased by officer.
<b>Kitchen furniture:</b>		
1 table .....	\$3.50	\$4.00
4 kitchen chairs, at 50 cents each .....	2.00	2.80
1 refrigerator .....	17.00	25.00
<b>Dining-room furniture:</b>		
Sideboard, 48 by 24 inches, with shelf and bevel glass .....	31.00	42.00
Dining table, pillar extension, 10 feet long, 48 inches diameter .....	18.00	24.00
Side serving table, with shelf and drawer, 37 by 17 inches .....	9.00	13.00
8 dining chairs, quartered oak, with cane seats, at \$2.50 each .....	20.00	28.00
<b>Hall furniture:</b>		
Hatrack, with box seat and hinged lid, with mirror 18 by 40 inches .....	18.50	25.00
<b>Parlor furniture:</b>		
1 divan, 1 arm chair, and 2 side chairs .....	69.00	100.00
1 center table .....	25.00	35.00
<b>Bedroom furniture:</b>		
2 iron beds with brass trimmings, including wire-woven mattress, or national spring, at \$15 .....	30.00	<sup>a</sup> 42.00
2 servants' beds, iron, white enamel, 42 or 36 inches wide, at \$4.75 .....	9.50	<sup>b</sup> 14.50
Bureau, 48 by 23 inches, circular mirror, 32 inches .....	36.00	48.00
Washstand, 36 by 18 inches .....	12.00	17.00
4 bedroom chairs, at \$1.50 .....	6.00	<sup>c</sup> 8.00
Chiffonier .....	31.00	42.00
1 Morris chair, with cushions .....	9.75	13.50
	347.25	483.80

<sup>a</sup> At \$21.

<sup>b</sup> At \$7.25.

<sup>c</sup> At \$2.

These are of good serviceable quality, and it is deemed in the interest of economy that such only should be purchased.

The following articles are believed to be necessary for a bachelor officer's quarters:

Articles.	Cost if purchased by Quartermaster's Department.	Cost if purchased by officer.
<b>Hall furniture:</b>		
1 hall rack .....	\$5.00	\$6.97
<b>Parlor furniture:</b>		
1 table .....	15.00	20.89
1 lounge or sofa .....	20.00	27.86
1 armchair .....	20.00	27.86
4 chairs, at \$3 .....	12.00	16.71
<b>Bedroom furniture:</b>		
1 bed .....	15.00	20.89
1 bureau .....	15.00	20.89
1 washstand .....	10.00	13.93
2 chairs, at \$1.50 .....	3.00	4.18
1 chiffonier .....	25.00	34.82
1 Morris chair .....	9.75	13.58
<b>Total</b> .....	148.75	208.58
<b>Difference</b> .....		59.83

Second. Assuming for the purpose of determining the cost of furniture that only captains and first lieutenants of the line would be supplied, this would give:

Captains of cavalry .....	\$225
Captains of artillery .....	195
Captains of infantry .....	450
First lieutenants of cavalry .....	225
First lieutenants of artillery .....	195
First lieutenants of infantry .....	450
<b>Total</b> .....	1,740
Deduct those in Philippines, 25 per cent .....	435
<b>Leaves</b> .....	1,305
Deduct those absent from posts, 20 per cent .....	261
<b>Leaves a balance of</b> .....	1,044

Assuming that 75 per cent of this number are married officers and 25 per cent are bachelors, the cost of supplying the furniture for the number of officers specified would be:

<b>For married officers:</b>	
If purchased by officer .....	\$415,100.40
If purchased by Quartermaster's Department .....	297,940.50
<b>Difference</b> .....	117,159.90



For bachelor officers:

If purchased by officer.....	59,653.88
If purchased by Quartermaster's Department .....	42,542.50
	17,111.38
Difference .....	17,111.38

This furniture could no doubt be obtained, if purchased by the Quartermaster's Department in large quantities, at somewhat less cost than stated above.

Third. Depreciation of furniture:

The allowance specified in the digest of insurance adjusters for the annual depreciation of furniture where there is a large family of children and the care of the property is left to servants is 20 per cent, and where carefully cared for by the owners, 10 per cent. Allowing two removals in five years—a very low average—and 20 per cent depreciation for wear and tear and breakage for each removal or change of station, would make 40 per cent depreciation on account of removals in five years, or 8 per cent per year; adding to this the annual depreciation of 20 per cent on account of wear and tear in use, makes the annual average depreciation to the officer under present conditions 28 per cent, or a renewal in about four years, equal to \$120.98 per year for articles in above list for married officers at retail prices, and \$52.15 per year for bachelor officers. This would be about \$51 per year more in the case of married officers and \$22.50 more in case of bachelor officers than the amount of rental to be paid to the Government for the use of the furniture at an allowance of 20 per cent per annum depreciation.

It is remarked in this connection that under the present system of transportation of officers' effects the expense of packing and crating officers authorized allowance of furniture practically always falls upon the Quartermaster's Department; under the proposed system the department would be relieved of this expense, the percentage of which it is difficult to estimate.

An allowance of 20 per cent depreciation per annum would retire the original outlay of the Government every five years. With ordinary use and small expenditures for repairs as needed, this Government furniture would still have some value at the end of five years, although just what this would be it is also difficult to estimate without some experience upon which to base the calculations. It is therefore believed that, all things considered, the Government would be adequately compensated by a rental of 15 per cent per annum on first cost of furniture furnished to officers, which is the mean between the highest and lowest estimate for annual depreciation by insurance adjusters and equal to renewal in about seven years.

Fourth. The following is the cost to the United States of a change of station allowance for a captain, 2,000 pounds:

	Cost.	Distance.
		<i>Miles.</i>
From Chicago to Washington.....	\$20.60	905
From San Francisco to Chicago.....	70.60	2,328
From San Francisco to Washington.....	77.20	3,238
From Fort Thomas, Ky., to Fort Assiniboine, Mont.....	76.60	1,674
From Fort Logan H. Roots, Ark., to Fort Snelling, Minn.....	29.60	925

Making an average of \$30.20 per 1,000 miles. It is believed that the average amount of baggage transported by an officer above his regulation allowance is 3,000 pounds, at an estimated average cost of \$55.

It is believed that there will be no saving in transportation charges to the Government for some years to come by the adoption of the proposed method, as the authorized amount of baggage allowed to an officer will still be shipped, at least in the case of married officers. The furniture mentioned in the foregoing list would cover only that part of an officer's personal baggage in excess of the amount now allowed to him by the Government and for which he is required under present conditions to pay transportation charges.

Fifth. Total first outlay, etc.:

Assuming the average amount of deterioration by wear and tear in use and removal of the furniture in the foregoing list for a married officer, amounting to \$483.80, under present conditions, at 28 per cent per annum, would be \$135.46; adding to this the cost of excess baggage, at the rate of \$55 for each removal, two removals in five years, costing \$110 or \$22 per annum, would make the total \$157.46 as the estimated saving to the officer by using Government furniture, from which should be deducted the rental at the rate of 15 per cent per annum on first cost of the furniture to the Government at \$347.25, equal to \$52.08, thus showing a saving of \$105.38 per annum to the married officer after having paid a rental at the rate of 15 per cent per annum under the proposed system. This saving would be only about \$36 to the bachelor officer because, as a rule, officers of this class have no excess baggage over the authorized allowance transported by the Government.

On the basis of the above estimate, the total first outlay, assuming that only captains and first lieutenants of the line are supplied, on the basis of 75 per cent married and 25 per cent bachelor, would be approximately \$340,483. As stated under paragraph 3, allowing a rental of such furniture as may be used by an officer at 15 per cent on its first cost, constituting a renewal in about seven years, it is believed

would be ample to compensate the Government for the first outlay necessary to inaugurate this system.

Assuming that these articles of furniture are supplied to all officers of the Army upon the basis as noted above, viz, 3,820 officers, less 25 per cent in the Philippines and 30 per cent of the remainder not serving at posts, a total of 1,813, leaving 2,007 officers to be provided for, will cost, upon the basis of 75 per cent married and 25 per cent bachelor, a total of \$595,260, to which must be added the cost of transportation to the respective posts.

This system, if introduced at all, should be brought in gradually, so as to enable the officers to become accustomed to and make their arrangements to meet it, without being obliged to dispense, under disadvantageous conditions, with the furniture which they now have. As above stated, the total estimated cost of supplying the articles of furniture herein referred to, for all officers in the service likely to require it, would be \$595,260. It is believed, however, that not more than one-half of this sum could be advantageously expended during the first year of the inauguration of this system.

While the articles selected are by no means a complete list of furniture that an officer would require in his household, it is believed that they constitute all that is necessary, and still leave the officer a large limit of choice for the exercise of his personal taste in completing the furnishings of his quarters.

It is remarked that the necessity may arise for construction or enlargement of storehouses at some posts in order to meet cases where quarters provided with Government furniture are vacated by an officer and another officer assigned to the same quarters brings his own furniture with him, in which event either must be stored at the post. This may, however, adjust itself in the course of time.

M. I. LUDINGTON,

*Quartermaster-General, U. S. Army.*

APPENDIX N.

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by request upon the Treasury, and the balances subject to requestion July 1, 1902.

Title of appropriation.	Salaries July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>CIVIL ESTABLISHMENT.</b>							
<b>SALARIES, CONTINGENCIES, AND CIVIL APPROPRIATIONS.</b>							
<i>Salaries and contingencies.</i>							
Salaries:							
Office of Secretary of War .....	\$10,211.79	\$104,150.00		\$114,861.79	\$99,085.53	\$4,663.64	\$10,662.62
Record and Pension Office .....	58,561.81	586,170.00		639,021.81	556,142.01	39,109.72	48,770.06
Office of Adjutant-General .....	8,018.65	165,080.00		169,098.65	162,754.34	1,319.00	4,026.31
Office of Inspector-General .....	227.41	13,160.00		13,867.41	12,965.00		4,222.41
Office of Judge-Advocate-General .....	649.72	15,460.00		16,109.72	15,807.00	648.35	154.37
Signal Office .....	1,060.32	6,500.00		7,560.32	6,029.59	70.25	1,480.48
Office of Quartermaster-General .....	6,508.77	152,540.00		159,048.77	149,783.21	3,025.72	6,239.64
Office of Commissary-General .....	1,333.67	43,960.00		45,293.67	43,108.84	952.70	1,237.13
Office of Surgeon-General .....	1,623.86	151,266.00		152,889.86	149,981.06	1,068.78	1,829.02
Office of Paymaster-General .....	1,263.78	34,560.00		34,823.78	33,623.06	83.78	1,216.92
Office of Chief of Ordnance .....	3,677.78	41,660.00		45,337.78	30,765.00	2,477.82	1,300.00
Office of Chief of Engineers .....	22.36	30,840.00		30,862.36	30,765.00	1.34	96.02
Stationery, War Department .....	37,978.24	600,000.00		637,978.24	559,138.06	27,897.89	50,942.27
Contingent expenses, War Department .....	456.51	32,500.00		32,956.51	24,438.13	13.00	8,142.50
Contingent expenses, War Department .....	513.46	68,000.00		68,513.46	48,304.19	13.00	15,196.27
Rent of buildings, War Department .....		15,000.00		15,000.00	14,550.00		450.00
Postage to Postal Union countries, War Department .....		1,000.00		1,000.00			500.00
Salaries of employees, public buildings and grounds .....	566.40	66,620.00		67,176.40	65,608.56	465.60	1,112.24
Contingent expenses, public buildings and grounds .....	4.18	600.00		604.18	600.00	4.18	
Total salaries and contingencies .....	122,478.61	2,118,066.00		2,240,544.61	2,009,608.53	82,167.60	148,768.48
<i>Buildings and grounds in and around Washington.</i>							
Improvement and care of public grounds .....	3,619.08	65,650.00		69,269.08	68,149.38	1,119.08	62
Repairs, fuel, etc., Executive Mansion .....	3,102.02	37,000.00		40,203.40	35,676.66	3,003.40	1,523.44
Lighting public grounds, District of Columbia .....	47.46	3,816.00		3,918.02	3,722.83	96.02	49.45
Lighting, etc., Executive Mansion, etc .....	2.40	12,562.00		12,978.50	12,694.68	47.35	7.12
Repairs to water pipes .....		2,500.00		2,502.40	2,500.00	2.40	
Telegraph to connect the Capitol with the Departments and Government Printing Office .....	737.00	1,500.00		1,500.00	1,500.00		
Purchase and repair of building where Abraham Lincoln died .....	1,268.71			1,268.71	8.98	1,268.71	
Repair of building where Abraham Lincoln died .....							

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>CIVIL ESTABLISHMENT—Continued.</b>							
<b>SALARIES, CONTINGENCIES, AND CIVIL APPROPRIATIONS—continued.</b>							
<i>Buildings and grounds in and around Washington—Continued.</i>							
Care and maintenance of Washington Monument.....	\$243.15	\$11,520.00		\$11,763.15	\$11,203.42	\$243.15	\$316.58
Electric plant, Washington Monument.....			\$3,239.38	3,239.38			3,239.38
Estimate for memorial bridge across Potomac River.....	27.24			27.24			27.24
Highway bridge across Potomac River, District of Columbia.....	564,500.00			564,500.00	2,000.00		562,500.00
Plans for extension of Executive Mansion.....	1,000.00		21.19	1,021.19			1,021.19
Plans for improving section south of Pennsylvania avenue and connecting Potomac and Zoological parks.....	884.98			884.98			884.98
Increasing the water supply of Washington, D. C.....	80,955.61	162,222.37		243,178.58	243,179.58		
Repairs to Aqueduct Bridge, District of Columbia.....	14,652.37			14,652.37	150.00		14,502.37
Total buildings and grounds in and around Washington.....	671,234.51	297,140.37	3,260.57	971,635.05	381,065.35	7,383.31	583,187.39
<i>Erection of monuments, etc.</i>							
Monument on site of Fort Phil Kearny massacre.....		500.00		500.00			500.00
Foundation for monument of Samuel Hahnemann.....	2,758.44			2,758.44		2,758.44	
Pedestal for statue of Gen. Philip H. Sheridan.....	50,000.00			50,000.00			50,000.00
Equestrian statue of Gen. George B. McClellan.....	41,500.00	50,000.00	1,059.90	42,559.90			42,559.90
Lincoln tablet, Gettysburg National Park.....	4,834.80			4,834.80			4,834.80
Designs for memorial or statue of Gen. Ulysses S. Grant.....	3,000.00			3,000.00	7,076.25		1,923.75
Unveiling statue of Gen. John A. Logan.....	380.94			380.94		380.94	
Total erection of monuments, etc.....	108,583.98	50,500.00	1,059.90	160,143.88	7,076.25	3,149.38	149,918.25
Total salaries and contingencies.....	122,478.61	2,118,063.00		2,240,541.61	2,009,608.53	82,167.60	148,768.48
Total buildings and grounds in and around Washington.....	671,234.51	297,140.37	3,260.57	971,635.05	381,065.35	7,383.31	583,187.39
Total erection of monuments, etc.....	108,583.98	50,500.00	1,059.90	160,143.88	7,076.25	3,149.38	149,918.25
Total salaries, contingencies, and civil appropriations.....	902,297.10	2,465,706.37	4,320.47	3,372,324.54	2,387,750.13	92,700.29	881,874.12
Repayments in excess of payments.....					4,320.47		
Actual expenditures.....					2,383,429.66		



## REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902.—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>PUBLIC WORKS.</b>							
<i>Harbors and rivers.</i>							
Improving harbor at—							
Belfast, Me.....	\$738.55			738.55			\$738.55
Camden, Me.....	59.21			59.21			59.21
Portland, Me.....	275,999.78			275,999.78			85,999.78
Rockland, Me.....	130,000.00			130,000.00			95,000.00
Cape Porpoise, Me.....	12,799.38			12,799.38			7,500.00
Portsmouth, N. H.....	4,432.39			4,432.39			4,432.39
Harbor of refuge at Little Harbor, N. H.....			\$296.82				296.82
Improving harbor at—							
Burlington, Vt.....	7,500.00			7,500.00			991.67
Marblehead, Mass.....	991.67			991.67			510,951.00
Boston, Mass.....	816,250.53			816,250.53			
Chatham, Mass.....	3,732.79			3,732.79			
Hyannis, Mass.....	1,862.00			1,862.00			1,861.11
Lynn, Mass.....	6,500.00			6,500.00			6,200.00
Newburyport, Mass.....	2,500.00		445.63	2,945.63			2,945.63
Plymouth, Mass.....	49,250.00			49,250.00			9,050.00
Provincetown, Mass.....	8,000.00			8,000.00			8,900.00
Vineyard Haven, Mass.....	3,000.00			3,000.00			3,000.00
New Bedford, Mass.....	6.96			6.96			
Fall River, Mass.....	2.60			2.60			
Gloucester, Mass.....			3,128.20	3,128.20			3,128.20
Manchester, Mass.....			252.22	252.22			252.22
Harbor of Refuge, Sandy Bay, Cape Ann, Mass.....	120,000.00			120,000.00			50,000.00
Improving—							
Cannapaisset Channel, Mass.....	687.46			687.46			687.46
Woods Hole Channel, Mass.....	17.74			17.74			
Improving harbor at—							
Nick's Island, R. I.....	1,000.00			1,000.00			
Norport, R. I.....	4.56			4.56			
Salt Point, R. I.....							
Improving entrance to Point Judith Pond, R. I.....	9,481.62			9,481.62			9,481.62
Improving harbor at—							
Bridgport, Conn.....	110,000.00			110,000.00			100,000.00
New Haven, Conn.....	75,000.00			75,000.00			30,000.00
Breakwater at New Haven, Conn.....	999.53			999.53			
Improving harbor at—							
Buffalo, N. Y.....	672,582.25			672,582.25			141,905.57
Dunkirk, N. Y.....	643.85			643.85			643.85
Great Sodus Bay, N. Y.....	2,000.00			2,000.00			





Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>PUBLIC WORKS—Continued.</b>							
<i>Harbors and rivers—Continued.</i>							
Ice harbor at—							
Pensacola, Fla.....	\$11,432.40			\$11,432.40			
St. Augustine, Fla.....	6,000.10			6,000.10			
Improving harbor at—							
Mobile, Ala.....	19,998.27			19,998.27			\$0.94
Natchez and Vidalia, Miss. and La.....	94			94			
Improving Ship Island Pass, Miss.....	\$0.21			94			.20
Improving harbor at—							
New Orleans, La.....	69,964.94			69,964.94			
Brazos Santiago, Tex.....	54,476.00			54,476.00			54,426.00
Galveston, Tex.....	40,976.13			40,976.13			3.08
Improving—							
Channel in West Galveston Bay, Tex.....	5,000.00			5,000.00			5,000.00
Galveston Ship Channel and Buffalo Bayou, Tex.....	287,990.35			287,990.35			12,890.35
Improving harbor at—							
St. Louis, Mo.....	31,000.00			31,000.00			
Ashtabula, Ohio.....	138,500.00			138,500.00			23,000.00
Black River, Ohio.....	142,499.05			142,499.05			81,000.00
Cleveland, Ohio.....	246,500.00			246,500.00			31,090.00
Conneaut, Ohio.....	43,999.14			43,999.14			
Huron, Ohio.....	24,500.00			24,500.00			
Toledo, Ohio.....	125,500.00			125,500.00			
Michigan City, Ind.....	280,000.00			280,000.00			144,890.00
Improving Wolf Lake, Ind.....	8,000.00			8,000.00		\$8,000.00	
Improving harbor at—							
Calumet, Ill.....	415,350.00			415,350.00			270,350.00
Chicago, Ill.....	74,999.05			74,999.05			29,499.05
Waukegan, Ill.....	4,000.00			4,000.00			500.00
Charlevoix, Mich.....	2,500.00			2,500.00			
Cheboygan, Mich.....	1,500.00			1,500.00			1,500.00
Frankfort, Mich.....	1,000.00			1,000.00			
Grand Haven, Mich.....	16,000.00			16,000.00			12,006.17
Juchington, Mich.....	3,000.00			3,000.00			2,000.00
Mansfield, Mich.....	5,000.00			5,000.00			
Manistique, Mich.....	2,044.95			2,044.95			2,044.95
Ontonagon, Mich.....	113.17			113.17			113.17
Petoskey, Mich.....	17,002.86			17,002.86			16,900.00
Starbuck, Mich.....	268,047.20			268,047.20			162,827.15
Harbor of refuge at—							
Portage Lake, Mich.....	70,000.00			70,000.00			

REPORT OF THE SECRETARY OF WAR.

Maryssette Bay, Mich.	420.49	420.49	420.49	201.67	212.82
Sand Beach, Mich.	287,323.44	287,323.44	287,323.44	9,999.64	277,323.80
Improving harbor at—					
Abramsee, Wis.	1,000.00	1,000.00	1,000.00	500.00	500.00
Ashland, Wis.	250.10	250.10	250.10	2.25	247.85
Duluth, Minn., and Superior, Wis.	651,807.58	651,807.58	651,807.58	580,510.45	71,297.13
Green Bay, Wis.	6,100.87	6,100.87	6,100.87	6,100.87	
Manitowoc, Wis.	1,500.00	1,500.00	1,500.00		1,500.00
Menominee, Wis.	1,000.00	1,000.00	1,000.00		1,000.00
Milwaukee, Wis.	7,500.00	7,500.00	7,500.00	2,500.00	5,000.00
Oconto, Wis.	488.47	488.47	488.47		488.47
Port Washington, Wis.	81.76	81.76	81.76		81.76
Sheboygan, Wis.	2,500.00	2,500.00	2,500.00		2,500.00
La Crosse, Wis.	6,500.00	6,500.00	6,500.00	4,500.00	2,000.00
Kenosha, Wis.	13,500.00	13,500.00	13,500.00	1,500.00	12,000.00
Kewaunee, Wis.	42.63	42.63	42.63	1.88	40.75
Racine, Wis.	3,000.00	3,000.00	3,000.00	3,000.00	
South Milwaukee, Wis.	70.00	70.00	70.00	70.00	
Harbor of refuge at—					
Milwaukee Bay, Wis.	15,000.00	15,000.00	15,000.00		15,000.00
Entrance of Sturgeon Bay Canal, Wis.	145.62	145.62	145.62		145.62
Improving harbor at—					
Dubuque, Iowa.	4,503.99	4,503.99	4,503.99		4,503.99
Agate Bay, Minn.	21,694.79	21,694.79	21,694.79	21,628.60	66.19
Grand Marais, Minn.	15,047.56	15,047.56	15,047.56	15,047.56	
Oakland, Cal.	330,000.00	330,000.00	330,000.00	218,000.00	112,000.00
San Luis Obispo, Cal.	26.81	26.81	26.81	1,200.94	1,200.94
San Diego, Cal.	19.30	19.30	19.30	1,717.80	1,717.80
Willington, Cal.	49,920.23	49,920.23	49,920.23	50,502.32	60,502.32
San Pedro, Cal.	539,969.11	539,969.11	539,969.11	379,663.13	160,325.98
Alviso, Cal.	20,000.00	20,000.00	20,000.00	725.00	19,275.00
San Francisco, Cal.	203,000.00	203,000.00	203,000.00	110,000.00	93,000.00
Port Orford, Oreg.	140,850.27	140,850.27	140,850.27		140,850.27
Improving—					
Entrance to Coos Bay and Harbor, Oreg.	9,563.50	9,563.50	9,563.50	1,672.39	7,891.20
Nehalem Bay, Oreg.	9,314.32	9,314.32	9,314.32		9,314.32
Tillamook Bay and Bar, Oreg.	399.44	399.44	399.44	399.44	
Yaquina Bay, Oreg.	9,727.24	9,727.24	9,727.24	8,029.84	1,697.40
Grays Harbor and Chehalis River, Wash.	288.63	288.63	288.63		288.63
Grays Harbor, Wash.	197,189.45	197,189.45	197,189.45	197,189.45	
Improving harbor at—					
Everett, Wash.	116,000.00	116,000.00	116,000.00		116,000.00
Olympia, Wash.	106.25	106.25	106.25		106.25
Survey of Portland Channel, Alaska.	49.02	49.02	49.02		49.02
Improving—					
Pearl Harbor, Hawaii	99,700.00	99,700.00	99,700.00	20,700.00	79,000.00
Ship channel connecting waters of the Great Lakes between Chicago, Duluth, and Buffalo	371,222.06	371,222.06	371,222.06	24,900.00	346,322.06
Investigating obstructions of navigation by the water hyacinth	3,169.62	3,169.62	3,169.62		3,169.62
Survey and examinations of waterways between the Great Lakes and Atlantic Ocean	453.69	453.69	453.69		453.69

## REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902.—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901 to June 30, 1902.	Repayments July 1, 1901 to June 30, 1902.	Aggregate available.	Payments July 1, 1901 to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>PUBLIC WORKS—Continued.</b>							
<i>Harbors and rivers—Continued.</i>							
<b>Improving—</b>							
Kennebec River, Me.....	\$25,000.00			\$25,000.00			\$25,000.00
Pennobscot River, Me.....	13,516.00			13,516.00			8,416.00
Saco River, Me.....	5,000.00		\$241.63	5,241.63	\$5,100.00		5,241.63
Sasanoa River, Me.....	7,012.31			7,012.31			7,012.31
Union River, Me.....	105,000.00			105,000.00	80,000.00		25,000.00
Bellamy River, N. H.....	357.02			357.02			357.02
Cocheco River, N. H.....	3,999.69		2,075.52	6,075.21			6,075.21
Exeter River, N. H.....			96.97	96.97			96.97
Essex River, Mass.....	3,700.79			3,700.79	160.00		3,540.79
Merrimac River, Mass.....	24,000.00			24,000.00	24,000.00		
Mystic and Malden rivers, Mass.....	2,500.00			2,500.00			2,500.00
Taunton River, Mass.....	19			19			
Powow River, Mass.....	168,497.48		59.28	168,497.48	156,000.00		13,497.48
Providence River and Narragansett Bay, R. I.....	899.99			899.99			899.99
Pawcatuck River, R. I.....	40,000.00			40,000.00			40,000.00
Sakonnet River, R. I.....	852.26			852.26	217.84		634.42
Removing Green Jacket Shoal, Providence River, R. I.....							
<b>Improving—</b>							
Connecticut River, between Hartford and Holyoke.....	6,940.30			6,940.30			6,940.30
Housatonic River, Conn.....	9,000.40			9,000.40	40		8,960.40
Browns Creek, N. Y.....	372.98			372.98			372.98
East Chester Creek, N. Y.....	98.68			98.68			98.68
Newtown Creek, N. Y.....	15,685.61			15,685.61	400.00		15,285.61
Harlem River, N. Y.....	2,781.29			2,781.29	1,781.29		1,000.00
Hudson River, N. Y.....	375,006.40			375,006.40	136,000.00		240,006.40
Patchogue River, N. Y.....	706.85			706.85	706.85		
Bronx River, N. Y.....	3,498.81			3,498.81	2,498.81		1,000.00
Niagara River, N. Y.....	89.14			89.14	89.14		
Removing obstructions in East River and Hell Gate, N. Y.....	120,000.00			120,000.00	120,000.00		
<b>Improving—</b>							
Dennis Creek, N. J.....	298.95			298.95			298.95
Cooper Creek, N. J.....	8,823.90			8,823.90			8,823.90
Sacoos River, N. J.....	2,242.77			2,242.77			2,242.77
Mancoos River, N. J.....	5,399.70			5,399.70			5,399.70
Manasquan River, N. J.....	8,500.00			8,500.00			8,500.00
Baritan River, N. J.....	925.00			925.00	685.00		240.00
Squan River, N. J.....	2,000.00			2,000.00			2,000.00
Frankford Creek, Pa.....	420,000.00			420,000.00	132,000.00		288,000.00
Dam at Hershey and, Allegheny River, near Pitsburg, Pa.....	365,273.48			365,273.48	151,500.00		213,773.48
Delaware River, Pa. and N. J.....							

	2,842.94	2,842.94	2,842.94	2,842.94
Cost of condemnation of property, Monongahela Navigation Co. Improving—				
La Trappe River, Md.	86.13	86.13	86.13	86.13
Chester River, Md.	2,958.54	2,958.54	2,958.54	2,958.54
Manokin River, Md.	113.29	113.29	113.29	113.29
Nanticoke River, Del. and Md.	700.00	700.00	700.00	700.00
Patuxent River, Md.	382.70	382.70	382.70	382.70
Patapeco River, Md.	512,000.00	512,000.00	512,000.00	512,000.00
Potomac River	205,500.52	205,500.52	205,500.52	205,500.52
Susquehanna River near Havre de Grace, Md.	9,784.05	9,784.05	9,784.05	9,784.05
Wicomico River, Md.	2.00	2.00	2.00	2.00
Aquila Creek, Va.	463.36	463.36	463.36	463.36
Nominal Creek, Va.	8,063.13	8,063.13	8,063.13	8,063.13
Elizabeth River, Va.	483.58	483.58	483.58	483.58
James River, Va.	38,383.72	38,383.72	38,383.72	38,383.72
Mattaponi River, Va.	4,021.32	4,021.32	4,021.32	4,021.32
Namesmond River, Va.	9,869.63	9,869.63	9,869.63	9,869.63
New River, Va. and W. Va.	2,308.94	2,308.94	2,308.94	2,308.94
Pamunkey River, Va.	2,781.57	2,781.57	2,781.57	2,781.57
Rappahannock River, Va.	3,960.26	3,960.26	3,960.26	3,960.26
Urbana Creek, Va.	469.42	469.42	469.42	469.42
Waterway from Chincoteague Bay to Indian River Bay, Va., Md., and Del.	25,700.00	25,700.00	25,700.00	25,700.00
Protecting Jamestown Island, Va.	11,899.63	11,899.63	11,899.63	11,899.63
Improving—				
Great Kanawha River, W. Va.	180,377.76	180,377.76	180,377.76	180,377.76
Monongahela River, W. Va.	780,000.00	780,000.00	780,000.00	780,000.00
Big Sandy River, W. Va. and Ky.	375,000.00	375,000.00	375,000.00	375,000.00
Ocracoke Inlet, N. C.	9,000.00	9,000.00	9,000.00	9,000.00
Fishing Creek, N. C.	40	40	40	40
Cape Fear River, N. C.	23,013.09	23,013.09	23,013.09	23,013.09
Pasquotank River, N. C.	4.57	4.57	4.57	4.57
New River, N. C.	3,300.00	3,300.00	3,300.00	3,300.00
Roanoke River, N. C.	15,006.76	15,006.76	15,006.76	15,006.76
Trent River, N. C.	13.50	13.50	13.50	13.50
Waterway from Norfolk, Va., to the sounds of North Carolina.	124,870.00	124,870.00	124,870.00	124,870.00
Waterway from Norfolk Harbor, Va., to Albemarle Sound, N. C.	4,500.00	4,500.00	4,500.00	4,500.00
Waterway between New River and Swansboro, N. C.	4,376.27	4,376.27	4,376.27	4,376.27
Conquance River, S. C.	167,564.25	167,564.25	167,564.25	167,564.25
Edisto River, S. C.	573.35	573.35	573.35	573.35
Great Pee Dee River, S. C.	500.00	500.00	500.00	500.00
Chatahochee River, Ga. and Ala.	15,957.88	15,957.88	15,957.88	15,957.88
Cornwall River, Ga.	25,977.82	25,977.82	25,977.82	25,977.82
Savannah River, Ga.	135,500.00	135,500.00	135,500.00	135,500.00
Ocmulgee River, Ga.	41,000.00	41,000.00	41,000.00	41,000.00
La Grange Bayou, Fla.	2,300.20	2,300.20	2,300.20	2,300.20
Choctawhatchee River, Fla. and Ala.	500.00	500.00	500.00	500.00
Indian River, Fla.	8,469.19	8,469.19	8,469.19	8,469.19
St. Johns River, Fla.	44,840.64	44,840.64	44,840.64	44,840.64
Withlacoochee River, Fla.	735.12	735.12	735.12	735.12

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Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayment July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>PUBLIC WORKS—Continued.</b>							
<i>Harbors and rivers—Continued.</i>							
Removing the water hyacinth, Fla.....	\$83,955.05			\$83,955.05			\$83,955.05
Surveys, Biscayne Bay and Palmbeach, Fla.....	10.75			10.75			10.75
Dredge for river and harbor improvements, Fla.....	31,000.00			31,000.00			31,000.00
Alabama River, Ala.....	11,996.99			11,996.99	\$11,971.44		25.55
Black Warrior River, Ala.....	118,635.55			118,635.55	60,015.25		58,620.30
Warrior and Tombigbee rivers, Ala. and Miss.....	470,896.26			470,896.26	233,901.64		236,994.62
Yazoo River, Miss.....	791,036.14			791,036.14	398,000.24		403,035.90
Homochitto River, Miss.....	584.28			584.28	62.68		521.60
Pascagoula River and Horn Island Harbor, Miss.....	95,000.00			95,000.00	85,350.00		9,650.00
Mississippi River.....	758,666.92			758,666.92	570,490.58		188,176.39
Mississippi River from mouth of Ohio River to Minneapolis, Minn.....	597,097.21			597,097.21	319,527.21		277,570.00
Mississippi River, between mouths of Ohio and Illinois rivers, Illinois and Missouri.....	2,571.70			2,571.70			2,571.70
Closing crevasses in Pass a Loutre, Mississippi River.....	22,004.92			22,004.92	1,000.00		21,004.92
Reservoirs at headwaters of Mississippi River.....	1,124.90			1,124.90	885.72		239.18
Removing obstructions in Mississippi River.....	23,644.71	\$100,000.00		123,644.71	96,710.06	\$13,644.71	18,298.95
Examinations and surveys at South Pass, Mississippi River.....	4,254.50	10,000.00		14,254.50		145.44	14,109.06
Operating snag and dredge boats on Upper Mississippi River.....	56.00	25,000.00		25,056.00	25,000.00		56.00
Plant for maintenance of channel, South Pass, Mississippi River.....	200,000.00	6,000.00		206,000.00	5,994.20		200,000.00
Gauging the waters of the Lower Mississippi and its tributaries.....	62,458.20	100,000.00		162,458.20	104,566.91		57,891.29
Maintenance of South Pass Channel, Mississippi River.....	4,941.09		\$961.53	5,902.62			5,902.62
Dredging South Pass, Mississippi River.....	327,266.83			327,266.83	106,500.00		220,766.83
Improving passes of the Mississippi River.....							
Bayou Boeuf, La.....	9,500.00			9,500.00	2,500.00		7,000.00
Ticketaw River, La.....	20.19			20.19	10.00		10.19
Bayou Contraband, La.....	132.54			132.54			132.54
Johnsons Bayou, La.....	250.65			250.65			250.65
Bayou Laourche, La.....	10,000.00			10,000.00	10,000.00		
Bayou Laquenne, La.....	768,833.47			768,833.47	78,500.45		690,333.02
Atchafalaya River, La.....	182,87.87			182,87.87	17.50		165.37
Atchafalaya River and Red rivers, La.....	29,946.50			29,946.50	29,946.50		
Mermentau River, La.....	1,568.22			1,568.22	25.00		1,543.22
Tombigbee River, La.....	4,137.56			4,137.56	4,098.82		38.74
Tombigbee River, La.....	40.73			40.73			40.73
Red River, La. and Ark.....	37,405.92			37,405.92	29,897.71		7,508.21
Bayou Teche, La.....	161.72			161.72	20.00		141.72
Calcasieu River and Pass, La.....	545.77			545.77	545.77		

Connecting Bayou Teche with Grand Lake at Charenton, La.	22,100.05	7,777.91	440.00	22,100.05	7,777.91	440.00	22,100.05	7,777.91
Improving—								
Sabine Pass, Tex.	124,082.81	124,082.81	68,875.90	60,686.41				
Aransas Pass and Bay, Tex.	85,667.35	85,667.35	81,000.00	4,417.35				
Paseo Cavallo, Tex.	35,868.78	35,868.78	1,000.00	34,868.78				
Cypress Bayou, Tex.	5,500.00	5,500.00	57,080.00	4,500.00				
Brazos River, Tex.	64,500.00	64,500.00	74.71	6,600.00				
Trinity River, Tex.	6,600.00	6,600.00	850.00	6,300.60				
Sabine and Natches rivers, Tex.	74.71	74.71						
Mouth of Brazos River, Tex.	6,650.60	6,650.60						
Sabine River, Tex.	161.67	161.67						
Examination of Improvements, mouth of Brazos River, Tex.	1,294.57	1,294.57						
Examinations of Improvements at Aransas Pass, Tex.	1,620.77	1,620.77						
Dredge boat for harbor at Sabine Pass, Tex.	5,984.22	5,984.22	1,684.86					
Improving—								
Arkansas River, Ark.	2,221.47	2,221.47	2,009.93	151.54				
Black River, Ark. and Mo.	81.54	81.54	75.00	6.54				
Current River, Ark. and Mo.	161.17	161.17	148.20	12.97				
Ouachita River, Ark. and La.	31,172.28	31,172.28	26,172.28	5,000.00				
St. Francis River, Ark.	176.08	176.08	170.93	5.15				
White River, Ark.	2,787.34	2,787.34	2,705.27	82.07				
Upper White River, Ark.	68,881.34	68,881.34	67,349.29	1,582.06				
Removing obstructions in Arkansas River, Ark. and Kans.	6,925.01	6,925.01	6,898.36	26.65				
Improving—								
Hiwassee River, Tenn.	72.93	72.93						
Clinch River, Tenn.	2,772.22	2,772.22	1,750.00	1,022.22				
Cumberland River above Nashville, Tenn.	82,899.30	82,899.30	23,807.13	59,092.17				
Cumberland River below Nashville, Tenn.	500.00	500.00	186.85	303.15				
French Broad River, Tenn.	2,158.46	2,158.46	2,082.27	76.19				
Forked Deer River, Tenn.	800.00	800.00	800.00					
Onton River, Tenn.	1,200.00	1,200.00	1,200.00					
Tennessee River below Chattanooga, Tenn., Ala., and Ky.	28,325.11	28,325.11	20,974.34	7,350.77				
Falls of the Ohio River at Louisville, Ky.	17,250.25	17,250.25	17,250.00	2.25				
Kentucky River, Ky.	440,000.46	440,000.46	101,060.00	338,980.46				
Rough River, Ky.	3,000.00	3,000.00	60.00	2,940.00				
Tradewater River, Ky.	431.52	431.52		431.52				
Survey of Licking River, Ky.	2,953.00	2,953.00		2,953.00				
Improving—								
Ohio River	215,044.53	215,044.53	97,091.00	118,023.53				
Ohio River, below Pittsburg, Pa.	1,618,500.00	1,618,500.00	378,160.00	1,240,340.00				
Operating snag boats on Ohio River	17,942.47	17,942.47	49,248.46	10,942.47				
Improving—								
Waterway from Keweenaw Bay to Lake Superior, Mich.	222,982.80	222,982.80	210,500.25	12,492.55				
Hay Lake Channel and Sault Ste. Marie River, Mich.	300,000.00	300,000.00	150,000.00	150,000.00				
St. Clair Flats Canal, Mich.	8,193.56	8,193.56	900.00	7,293.56				
Black River, Mich.	4,375.13	4,375.13		4,375.13				
Clinton River, Mich.	6,680.17	6,680.17		6,680.17				
Detroit River, Mich.	484,500.00	484,500.00	388,000.00	96,500.00				
Grand River, Mich.	5,000.00	5,000.00	3,000.00	2,000.00				
Kalamazoo River, Mich.	14,000.00	14,000.00		14,000.00				
Saginaw River, Mich.	15,000.00	15,000.00		15,000.00				

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Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>PUBLIC WORKS—Continued.</b>							
<i>Harbors and rivers—Continued.</i>							
<b>Improving—</b>							
Sebewaing River, Mich.....	\$14,000.00			\$14,000.00	\$100.00		\$13,900.00
St. Marys River, Mich.....	785,029.65			785,029.65	22,564.05		762,465.60
Sturgeon Bay and Lake Michigan Ship Canal.....	607.15			607.15	607.15		
Chippewa River, Wis.....	12.14			12.14	5.99	\$6.15	
St. Croix River, Wis. and Minn.....	453.54			453.54	407.77		45.77
Fox River, Wis.....	5,003.32			5,003.32	.39		5,002.93
Red River of the North, Minn. and Dak.....	2,158.07			2,158.07	1,277.17		880.90
Minnesota River, Minn.....	3,549.14			3,549.14	211.74		3,337.40
Warroad River, Minn.....	2,055.07		\$348.30	2,403.37			2,403.37
Illinois and Mississippi Canal.....	1,544,531.59			1,544,531.59	569,534.09		974,997.50
<b>Improving—</b>							
Chicago River, Ill.....	212,865.51			212,865.51	12,886.51		200,000.00
Calumet River, Ill. and Ind.....	12,253.85			12,253.85	3,186.26		9,067.59
Illinois River, Ill.....	31,233.66			31,233.66	10,500.00		20,733.66
Wabash River, Ind. and Ill.....	15,000.25			15,000.25			15,000.25
Gaconda River, Mo.....	1,000.00			1,000.00	1,000.00		
Osgae River, Mo. and Kans.....	8,304.38			8,304.38	2,994.86		5,309.52
Missouri River.....	129.00			129.00			129.00
Missouri River from mouth to Sioux City, Iowa.....	10,762.50			10,762.50	10,218.13		544.37
Missouri River from Stubbs Ferry, Mont., to Sioux City, Iowa.....	18,876.88			18,876.88	15,816.04		3,060.84
Yellowstone River, Mont. and N. Dak.....	11,720.41			11,720.41		11,720.41	
Yellowstone River, Mont.....	11.95			11.95			11.95
Kathlamet River, Mont.....			189.23	189.23			189.23
Examination of Missouri River from Three Forks to Canyon Ferry, Mont.....							754.01
<b>Improving</b>							
Sacramento River, Cal.....	77,991.09			77,991.09	28,391.89		49,599.20
Sacramento and Feather rivers, Cal.....	250,000.00			250,000.00	10,000.00		240,000.00
Saragocuin River, Cal.....	29,182.44			29,182.44	12,884.08		16,298.36
Mouth of Columbia River, Oreg. and Wash.....	176,503.00			176,503.00	114,200.54		62,302.46
Columbia River at Cascade, Oreg.....	4,998.06			4,998.06	4,501.23		496.83
Columbia and Lower Willamette rivers, below Portland, Oreg.....	69,030.65			69,030.65	44,101.65		24,929.00
Columbia River at Three Mile Rapids, Oreg. and Wash.....	214,413.05			214,413.05			214,413.05
Alesea River, Oreg.....	1,044.16			1,044.16			1,044.16
Coquille River, Oreg.....	1,500.00			1,500.00			1,500.00
Netuccia River, Oreg.....	257.12			257.12			257.12
Sinalaw River, Oreg.....	233.59			233.59	24.90		208.69
Upper Columbia and Snake rivers, Oreg. and Wash.....	199.95			199.95	199.95		
Umpqua River, Oreg.....	259.18			259.18			259.18

Willamette and Yamhill rivers, Oreg.....	32.54	32.54				6.46		26.08
Willamette River above Portland, Oreg.....	34.37	34.37						34.37
Catawkie River, Oreg.....	11,000.00	11,000.00				10,800.85		199.15
Gauging the waters of Columbia River, Oreg.....	500.00	500.00						500.00
Improving—								
Waterway connecting Puget Sound with Lakes Union and Washington.....	161,499.00	161,499.00						76,499.00
Pend Oreille River, Wash.....	1,260.29	1,260.29				85,000.00		1,000.00
Puget Sound, Wash.....	16,000.00	16,000.00				11,000.00		5,000.00
Swinomish Slough, Wash.....	4,000.00	4,000.00				4,000.00		8,000.00
Willapa River and Harbor, Wash.....	4,020.70	4,020.70						4,020.70
Columbia River, Wash.....	\$0.44					.44		
Chehalis River, Wash.....	1,078.91	1,078.91						1,078.91
Clearwater River, Idaho.....	12,741.67	12,741.67				500.00		12,241.67
Kootenai River, Idaho.....	745.46	745.46						745.46
Upper Snake River, Idaho.....	4,500.00	4,500.00						4,500.00
Operating and care of canals and other works of navigation, indefinite.....	1,056,323.31	1,056,323.31				1,056,323.31		
Removing sunken vessels or craft obstructing or endangering navigation, indefinite.....	43,737.28	43,737.28				43,737.28		
Examinations, surveys, and contingencies of rivers and harbors.....	19,073.52	19,073.52				18,335.90		737.62
Emergencies in river and harbor works.....	109,835.19	109,835.19				68,070.66		41,764.53
Total harbors and rivers.....	26,992,889.22	30,401,341.73	17,631.48			14,929,612.22	47,338.63	15,433,390.88
Repayments in excess of payments.....						17,631.48		
Actual expenditures.....						14,962,980.74		
Buildings and grounds, Military Academy.....	109,951.05	109,951.05						131,990.00
Total buildings and grounds, Military Academy.....	109,951.05	109,951.05						131,990.00
Arsenals.								
Rock Island Armory, Ill.....	434,315.00	434,315.00				245,000.00		229,315.00
Rock Island Bridge, Rock Island, Ill.....	12,500.00	12,500.00				12,500.00		
Rock Island Arsenal, Rock Island, Ill.....	27,000.00	180,000.00				72,500.00		107,500.00
Benicia Arsenal, Benicia, Cal.....	3,801.05	3,801.05				1,801.05		1,801.05
Schuykill Arsenal, Philadelphia, Pa.....	75,000.00	75,000.00				73,126.20		1,873.80
Frankford Arsenal, Philadelphia, Pa.....	182,530.00	182,530.00				86,530.00		86,000.00
Springfield Arsenal, Springfield, Mass.....	6,153.77	85,267.97				83,535.81		1,412.16
Watertown Arsenal, Watertown, Mass.....	27,337.00	66,053.77				9,665.77		56,400.00
Watervliet Arsenal, West Troy, N. Y.....	16.03	52,537.00				10,767.00		41,770.00
Repairs of arsenals.....	16,799.32	90,000.00				89,551.76		122.00
Powder depot, Dover, N. J.....	102,478.97	178,300.00				81,717.39		16,759.92
Testing machine, Sandy Hook, N. J.....	90.38	15,000.00				15,000.00		199,059.58
Total arsenals.....	692,960.09	1,494,210.09	801,250.00			750,226.93	1,932.65	742,050.51



## REPORT OF THE SECRETARY OF WAR.

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>PUBLIC WORKS—Continued.</b>							
<i>Fortifications.</i>							
Board of Ordnance and Fortification.....	\$995,854.83	\$100,000.00		\$995,854.83	\$129,089.29		\$866,765.54
Board on fortifications or other defenses.....	28,470.77			28,470.77			28,470.77
Board on Pacific coast gun factory.....	2,500.00			2,500.00			2,500.00
Preservation and repair of fortifications.....	89,984.90	303,000.00		392,984.90	90,269.90		302,715.00
Plans for fortifications.....	5,000.00	5,000.00		10,000.00	5,000.00		5,000.00
Armament of fortifications.....	8,060,051.72	3,413,255.00		11,473,306.72	3,782,403.71		7,690,903.01
Sites for fortifications and seacoast defenses.....	392,219.71	200,000.00		592,219.71	128,947.08		463,272.63
Supplies for seacoast defenses.....	33,660.54	25,000.00		58,660.54	27,633.48		31,027.06
Gun and mortar batteries.....	3,327,401.20	2,325,000.00		5,652,401.20	1,974,307.03		3,678,094.17
Torpedoes for harbor defense.....	62,320.53	50,002.68		112,323.21	27,133.20	\$4,833.45	180,000.00
Torpedo defense of Manila Harbor, P. I.....	150,000.00	100,000.00		250,000.00	68,400.00		181,600.00
Sea walls and embankments.....	47,498.94			47,498.94	80,800.00		128,308.94
Sea wall, Fort Caswell, N. C.....	40,800.00			40,800.00	5,000.00		35,800.00
Howell counterpoise carriage.....	2,233.00			2,233.00	5,000.00		7,233.00
Rathmum gun and ammunition.....	5,223.00			5,223.00	37,400.00		42,623.00
Test of Gatling and army guns.....	37,400.00			37,400.00	82,852.24		120,252.24
Pneumatic dynamite torpedo battery.....	75,692.65			75,692.65	68,862.50		6,830.15
Ten-inch pneumatic disappearing gun carriage.....	12,802.80			12,802.80			12,802.80
Powder and projectiles (processes of sales).....	10,000.00			10,000.00			10,000.00
Emery loading apparatus.....	1,822.47	99.15		1,921.62	170.00		1,751.62
Ordnance materials (processes of sales).....	709,727.62	244,789.52		954,517.14	75,948.01		878,569.13
Seacoast batteries for instruction of militia.....	100,000.00			100,000.00	758.82		99,241.18
Isaham shell and Tuttle thortle.....	128,500.00			128,500.00			128,500.00
Searchlights for New York Harbor.....		150,000.00		150,000.00	94,500.00		55,500.00
Searchlights for harbor defenses.....		150,000.00		150,000.00			150,000.00
Reconstruction and repair of fortifications, Galveston, Tex.....		974,000.00		974,000.00	193,031.86		780,968.14
Purchase of land, Cushing Island, Maine.....		225,000.00		225,000.00			225,000.00
School of submarine defense, Fort Totten, N. Y.....		16,500.00		16,500.00			16,500.00
Sea wall, Sandy Hook, N. J.....		75,000.00		75,000.00			75,000.00
National defense (war).....		8347,743.38		8347,743.38			8347,743.38
<b>Total fortifications.....</b>	<b>14,824,903.13</b>	<b>7,232,646.35</b>	<b>347,743.38</b>	<b>22,405,192.86</b>	<b>6,732,892.32</b>	<b>4,833.45</b>	<b>15,667,477.09</b>
<i>Military posts and parks.</i>							
<b>Military posts</b>	<b>743,890.45</b>	<b>860,000.00</b>		<b>1,603,890.45</b>	<b>1,083,242.45</b>	<b>45,263.51</b>	<b>565,384.49</b>
Military post, Sheridan, W. Va.....	417.00	35,000.00		35,417.00	34,437.85		979.15
Military post, Fort Meade, S. Dak.....	4,832.88	38,000.00		42,832.88	2,420.00		40,412.88
Military post, Spokane, Wash.....	31,146.83			31,146.83			31,146.83

Military post, Fort D. A. Russell, Wyo.....	772.00	35,000.00			85,772.00				85,772.00
Military post, Des Moines, Iowa.....	200,000.00	500,000.00			200,000.00	576.72			199,124.28
Military post, Manila, P. I.....		35,000.00			35,000.00	100,000.00			400,000.00
Military post, Blomark, N. Dak.....		8,960.00			22,721.11	14,011.75			20,498.78
Sewerage system, Fortress Monroe, Va.....					21.11	6,446.46		13,761.90	6,122.38
Military road, Fort Washakie, Wyo.....						16.46			6.02
Enlargement of Governors Island, N. Y.....		200,000.00			200,000.00	150,000.00			49,994.00
Army buildings, Governors Island, N. Y.....		60,000.00			60,000.00	60,000.00			60,000.00
Gettysburg National Park.....		80,000.00			80,000.00	80,464.20			60,000.00
Shiloh National Military Park.....		50,000.00			50,000.00	51,699.76			38,003.24
Chickamauga and Chattanooga National Park.....		58,600.00			58,600.00	68,829.50			39,003.02
Vicksburg National Military Park.....		100,000.00			129,258.18	82,583.30			96,674.88
Anderson Battlefield: Preservation.....		8,000.00			3,000.22	2,998.64			3.86
Improvement of Yellowstone National Park.....		31.96			58,609.79	55,171.67			3,498.12
Battle lines and sites for tablets at Antietam.....					9.34				9.34
Total military posts and parks.....		2,060,591.96			3,195,349.42	1,655,050.18		59,025.63	1,490,673.61
Total harbors and rivers.....		1,391,121.03			30,401,341.73	14,920,612.22		47,338.63	15,433,990.88
Total buildings and grounds, Military Academy.....		149,040.00			258,991.05	125,844.45		1,156.60	131,990.00
Total arsenals.....		692,960.09			1,494,210.09	750,226.83		1,832.66	742,050.51
Total fortifications.....		14,834,803.13			27,232,646.35	6,732,862.32		4,833.46	15,667,477.09
Total military posts and parks.....		1,134,757.46			3,195,349.42	1,655,050.18		59,025.63	1,490,673.61
Total public works.....		45,735,060.95			57,755,085.15	24,185,216.10		114,286.96	33,455,562.09
Repayments in excess of payments.....						365,374.86			
Actual expenditures.....								23,819,841.24	
MISCELLANEOUS OBJECTS.									
<i>National cemeteries.</i>									
National cemeteries.....	4,688.22	100,000.00			104,688.22	96,976.34			4,995.87
Pay of superintendents of national cemeteries.....	1,796.02	61,890.00			63,676.02	61,707.60		2,745.01	239.99
Headstones for graves of soldiers.....	27,069.14	25,005.81			52,074.95	42,170.01		9,917.90	587.04
Burial of indigent soldiers.....	2,390.00	3,014.00			5,404.00	1,814.70		1,290.00	2,229.30
Repairing roads to national cemeteries.....	2,001.61	15,000.00			17,001.61	14,658.32			2,343.29
Road to the national cemetery, Presidio of San Francisco, Cal.....		5,000.00			5,001.80	4,999.79		1.80	
Road to the national cemetery, Staunton, Va.....	2,640.89	2,000.00			2,640.89	2,638.57			2.32
Road to the national cemetery, Dover, Tenn.....		11,500.00			11,500.00	2,000.00			9,500.00
Road from Newbern to the national cemetery, North Carolina.....		15,000.00			15,000.00	15,000.00			15,000.00
Loudon Park National Cemetery, Baltimore, Md.....									
Reburial of Confederate soldiers at national cemetery, Arlington.....									
Total national cemeteries.....	41,187.68	238,429.81			280,160.28	226,965.23		15,083.24	37,511.81
<i>Soldiers' Homes.</i>									
Support of Soldiers' Home.....		536,045.62			536,045.62	536,045.62			8,120,612.71
Soldiers' Home permanent fund.....	2,850,567.09	536,045.62			3,386,612.71	236,000.00			3,150,612.71
Soldiers' Home interest account.....	20,863.11	90,480.10			111,343.21	87,663.27			23,651.94

Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
MISCELLANEOUS OBJECTS—Continued.							
<i>Soldiers' Homes—Continued.</i>							
National Home for Disabled Volunteer Soldiers	\$165,768.35	\$3,215,696.93		\$3,381,465.28	\$3,086,434.40	\$182,813.52	\$162,217.36
Establishing Branch of National Home for Disabled Volunteer Soldiers, Johnson City, Tenn.	215,000.00	350,000.00		565,000.00	200,000.00		365,000.00
State or Territorial homes for disabled soldiers and sailors		1,004,724.80		1,004,724.80	1,004,724.80		
Establishing National Sanitarium for Disabled Volunteer Soldiers, Hot Springs, S. Dak.		150,000.00		150,000.00			150,000.00
National Sanitarium for Disabled Volunteer Soldiers, Hot Springs, S. Dak.—equipment, maintenance, etc.		20,000.00		20,000.00			20,000.00
Total Soldiers' Homes.....	3,222,218.55	5,902,943.07		9,125,161.62	6,100,866.09	182,813.52	3,841,492.01
<i>War claims and relief acts.</i>							
Bounty to volunteers, their widows and legal heirs	19,721.71		\$1.72	19,723.43			19,723.43
Bounty under act of July 28, 1866	2,785.35		100.00	2,885.35		100.00	2,785.35
Bounty under act of July 11, 1862	157.10	75.00		232.10	50.00		25.00
Arrears of pay, bounty, etc.	7,531.90	325,000.00		332,531.90	314,950.34	846.26	9,821.50
Pay of volunteers		1.30	1,003.27	8,586.47		1,001.64	7,584.83
Pay, etc., of the Army, war with Spain		39.43		39.43			39.43
Extra pay to volunteers, war with Spain		200,000.00		200,000.00	66,633.46		133,366.54
Extra pay to Regular Army, war with Spain		65,254.59		65,254.59	65,254.59		
Extra pay to officers and men who served in the Mexican war		17,254.25		17,254.25	17,254.25		
Services and supplies of Mohamans volunteers in the Nez Percé Indian war.....	657.00	21.00		678.00	21.00		
Pay, transportation, services, and supplies of Oregon and Washington Volunteers, 1855-58				657.00			657.00
Traveling expenses of California and Nevada volunteers	118.21			118.21	118.21		
Transportation expenses of volunteers with Spain	809.77	149.71		959.48	202.97		256.51
Supplies and outfit of the Plate Indians in Nevada	142.16	142.16		284.32	142.16		
Commutation of rations to prisoners of war in military service	2,501.00	40.00		2,541.00	1,431.00		1,070.00
Commutation of rations to prisoners of war in rebel States and to soldiers on furlough	5,483.53			5,483.53	40.00		5,443.53
Examination of claims of States and Territories under act of June 27, 1892	2,162.61			2,162.61	7.50		2,155.11
Claims of officers and men of the Army for destruction of private property	5,689.75			5,689.75			5,689.75
Claims of loyal citizens for supplies furnished during the rebellion	273.00	497.72		770.72	497.72		273.00



Statement of appropriations under direction of the War Department for the fiscal year ending June 30, 1902, showing the amount appropriated under each title of appropriation, the amount drawn by requisition upon the Treasury, and the balances subject to requisition July 1, 1902—Continued.

Title of appropriation.	Balances July 1, 1901.	Appropriated July 1, 1901, to June 30, 1902.	Repayments July 1, 1901, to June 30, 1902.	Aggregate available.	Payments July 1, 1901, to June 30, 1902.	Carried to surplus fund June 30, 1902.	Balances June 30, 1902.
<b>MISCELLANEOUS OBJECTS—Continued.</b>							
<i>Miscellaneous—Continued.</i>							
Miscellaneous advertising, War Department.....	\$5.00			\$5.00			\$5.00
Miscellaneous advertisements, war with Spain.....	1.00	\$20.70		21.70			21.70
Maps, War Department.....	14,500.00	5,000.00	\$245.00	19,745.00		\$10,000.00	9,745.00
Establishment of Apache prisoners at Fort Sill, Okla.....		2,500.00		2,500.00	\$2,500.00		
Military telegraph and cable lines.....			1.33	1.33		1.33	
Refunding customs revenue collected from Porto Rico for the relief of its government and people.....	301,736.63		97,023.18	398,759.81			398,759.81
Total miscellaneous.....	1,021,093.79	1,328,547.18	97,275.51	2,446,906.48	1,051,631.44	48,952.63	1,346,422.41
Total national cemeteries.....	41,187.68	238,429.81	542.79	280,160.28	226,865.23	15,683.24	37,511.81
Total Soldiers' Homes.....	3,222,218.55	5,902,913.07		9,125,161.62	5,100,866.09	182,813.52	3,841,482.01
Total war claims and relief acts.....	252,836.52	3,134,811.09	1,104.99	3,388,482.60	2,787,373.81	1,446.80	599,661.99
Total miscellaneous.....	1,021,093.79	1,328,547.18	97,275.51	2,446,906.48	1,051,631.44	48,952.63	1,346,422.41
Total miscellaneous objects.....	4,537,028.54	10,604,761.15	98,923.29	15,240,710.98	9,166,886.57	248,786.19	5,825,078.22
Repayments in excess of payments.....					96,923.29		
Actual expenditures.....					9,067,913.28		
<b>RECAPITULATION.</b>							
Civil establishment.....	\$802,297.10	\$2,465,706.97	\$4,320.47	\$3,372,324.54	\$2,397,750.13	\$92,700.29	\$881,874.12
Support of the Army (military establishment and Military Academy).....	50,135,951.41	117,436,831.50	19,636.01	167,592,409.22	79,303,878.78	17,201,604.98	71,086,925.46
Public works (including harbors and rivers).....	45,755,080.96	11,634,619.34	365,374.86	57,755,065.15	24,185,216.10	114,286.96	33,455,582.09
Miscellaneous objects.....	4,537,028.54	10,604,761.15	98,923.29	15,240,710.98	9,166,836.57	248,786.19	5,825,078.22
Total.....	101,830,358.00	142,141,949.26	488,244.63	243,960,529.89	115,068,681.58	17,657,388.42	111,249,458.89
Repayments in excess of payments.....					488,244.63		
Actual expenditures.....					114,565,436.95		

## APPENDIX O.

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### PAPERS RELATING TO FRIARS' LAND NEGOTIATIONS.

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#### **INSTRUCTIONS OF THE SECRETARY OF WAR TO GOVERNOR WILLIAM H. TAFT IN THE MATTER OF THE PURCHASE OF FRIAR LANDS IN THE PHILIPPINES.**

WAR DEPARTMENT,  
*Washington, May 9, 1902.*

**SIR:** It is now apparent that Congress will not have acted upon the Philippine Commission's recommendations regarding the purchase of friars' lands before the time of your departure for Manila, which can not be longer delayed. You can not, therefore, as we had hoped, now receive definite instructions, and proceed to take such steps, in the execution of specific authority from Congress, as should properly be taken before you return to Manila. The committees of both Houses have, however, reported favorably upon the Commission's recommendations, and it appears probable that Congress will confirm their action. In view, therefore, of the critical situation of this subject in the Philippines, and of the apparent impossibility of disposing of the matter there by negotiation with the friars themselves, the President does not feel at liberty to lose the opportunity for effective action afforded by your presence in the West. He wishes you to take the subject up tentatively with the ecclesiastical superiors who must ultimately determine the friars' course of conduct, and endeavor to reach at least a basis of negotiation along lines which will be satisfactory to them and to the Philippine government, accompanied by a full understanding on both sides of the facts and of the views and purposes of the parties to the negotiation, so that when Congress shall have acted the business may proceed to a conclusion without delay.

You are accordingly authorized, in the course of your return journey to Manila, to visit Rome, and there ascertain what church authorities have the power to negotiate for and determine upon a sale of the lands of the religious orders in the Philippines Islands, and if you find, as we are informed, that the officers of the church at Rome have such power and authority, you will endeavor to attain the results above indicated. Any negotiations which you may enter upon are always subject to granting of power by Congress to follow the nego-

tiations by binding action. In any conferences and negotiations you will bear in mind the following propositions, which are deemed to be fundamental, and which should be fully and frankly stated to the other side in the negotiations:

(1) One of the controlling principles of our Government is the complete separation of church and state, with the entire freedom of each from any control or interference by the other. This principle is imperative wherever American jurisdiction extends, and no modification or shading thereof can be a subject of discussion.

(2) It is necessary now to deal with the results of establishing a government controlled by this principle in the Philippine Islands, which have for centuries been governed under an entirely different system, with church and state closely united, and having functions of the one exercised by agents of the other; where the church has long controlled and acted virtually as the agent of the state in the field of public instruction and public charities, and has from time to time acquired large properties held by it or by its subordinate corporations or officers for these public uses. A novel situation has been created under which the adjustment of means to ends appropriate to the former system entirely fails to produce the intended result under the new system, and the separation of church and state requires to be followed by a readjustment and rearrangement in the interests both of church and of state, and for the attainment of the great ends of civil government, of education, of charity, and of religion.

(3) By reason of the separation the religious orders can no longer perform in behalf of the state the duties in relation to public instruction and public charities formerly resting upon them, and the power which they formerly exercised, through their relations to the civil government, being now withdrawn, they find themselves the object of such hostility on the part of their tenantry against them as landlords, and on the part of the people of the parishes against them as representatives of the former government, that they are no longer capable of serving any useful purpose for the church. No rents can be collected from the populous communities occupying their lands unless it be by the intervention of the civil government with armed force. Speaking generally, for several years past the friars, formerly installed over the parishes, have been unable to remain at their posts, and are collected in Manila with the vain hope of returning. They will not be voluntarily accepted again by the people, and can not be restored to their positions except by forcible intervention on the part of the civil government, which the principles of our Government forbid.

It is manifest that under these conditions it is for the interest of the church, as well as of the state, that the landed proprietorship of the religious orders in the Philippine Islands should cease, and that if the church wishes, as of course it does wish, to continue its ministrations

among the people of the islands, and to conduct in its own behalf a system of instruction, with which we have no desire to interfere, it should seek other agents therefor.

(4) It is the wish of our Government, in case Congress shall grant authority, that the titles of the religious orders to the large tracts of agricultural lands which they now hold shall be extinguished, but that full and fair compensation shall be made therefor.

(5) It is not, however, deemed to be for the interests of the people of the Philippine Islands that, in thus transforming wholly unproductive tracts of land into money capable of productive investment, a fund should thereby be created to be used for the attempted restoration of the friars to the parishes from which they are now separated, with the consequent disturbance of law and order.

(6) The titles to the great amount of church lands and buildings in the islands, other than those of the religious orders and now apparently owned by the state, should be settled fairly.

(7) Provision should be made for ascertaining what rentals, if any, ought to be paid for conventos and other church buildings which have been occupied by United States troops during the insurrection, this being of course subject to further specific action by Congress.

(8) The rights and obligations remaining under the various specific trusts for education and charity which are now in doubt and controversy ought to be settled by agreement if possible, rather than by the slow and frequently disastrous processes of litigation, so that the beneficent purposes of these foundations may not fail.

(9) Your errand will not be in any sense or degree diplomatic in its nature, but will be purely a business matter of negotiation by you as Governor of the Philippines for the purchase of property from the owners thereof, and the settlement of land titles, in such a manner as to contribute to the best interests of the people of the islands.

Any assistance which you may desire, whether on the part of officers of the civil government, or of military officers, to enable you to perform the duties above described in a manner satisfactory to yourself, will be afforded; but the business is left entirely in your hands, subject to such action as may be taken pursuant to law upon your report.

Very respectfully,

ELIHU ROOT,  
*Secretary of War.*

HON. WILLIAM H. TAFT,  
*Civil Governor of the Philippines,*  
*Washington, D. C.*



[Copy of cablegram sent.]

WASHINGTON, *June 5, 1902.*

TAFT, *Rome, Italy:*

Referring to your dispatch of June third. The statements regarding the religious orders on page 3 of the instructions are to be understood as referring to the four orders named in your telegram. The system of instruction mentioned in line twenty-three is to be understood as referring to instruction in the parishes.

ROOT, *Secretary of War.*

DEPARTMENT OF STATE,

*Washington, May 10, 1902.*

MOST EMINENT SIR: I take pleasure in presenting to your eminence the Honorable William H. Taft, one of our most distinguished citizens, who is at present, and has been for several years, the civil governor of the Philippine Islands, which important office he has filled with great intelligence and success. He is now returning to the islands after a brief stay in this country. On his way he will visit Rome for the purpose of reaching, if possible, a basis for the just settlement of the many pending questions relating to property held in the Philippine Islands for religious and charitable uses. I beg to commend him to your confidence and kind consideration with sincere hope for the attainment of results which shall promote both the civil and religious welfare of the people of the islands.

I profit by this occasion, Most Eminent Sir, to tender you the assurance of my profound esteem and highest consideration.

Your obedient servant,

JOHN HAY.

To His Eminence, Cardinal M. RAMPOLLA DEL TINDARO,  
*Secretary of State to His Holiness, etc., etc.*

[Translation.]

EXCELLENCY: I have the gratification to signify to your Excellency that you will be received by His Holiness in private audience, together with the members of the honorable mission in your party, to-morrow, Thursday, the fifth instant, at the hour of half past twelve.

I avail myself of the opportunity to assure your Excellency of the distinct sense of consideration with which I have the honor to be of your Excellency the most devoted servant.

M. CARD. RAMPOLLA.

ROME, *June 4, 1902.*

To Mr. WILLIAM TAFT,  
*Governor of the Philippines.*

*Text of address made by Governor Taft to His Holiness the Pope.*

**YOUR HOLINESS:** On my departure from Washington, President Roosevelt committed to my hands an autograph note of personal greeting and eight bound volumes of his literary works to be delivered to Your Holiness. I now have the honor of complying with his direction.

I desire next to express my sense of the personal honor of this audience. I am not a member of the Roman Catholic Church; but one who has marked the enlightened statesmanship, the limpid purity of character, and the earnest seeking for the uplifting of all humanity that have been the personal characteristics of the head of the Roman Church during the quarter century of the present pontificate can not fail, whatever his church or creed, to entertain the most profound respect for Your Holiness.

The transfer of sovereignty and all governmental property rights and interests from the Crown of Spain to the United States in the Philippine Islands contained in the Treaty of Paris was a transfer from a government between which and the Church of Rome there had been in those islands the closest association in property, religion, and politics, to a government which by the law of its being is absolutely prevented from having such associations with any church. To make the transfer effectual, and at the same time just, it is obvious that the proper line of division must be drawn between what were really civil property interests of the Crown of Spain and what were religious trusts of the Catholic Church, and that all union of civil and clerical agencies for performance of political functions must end.

It is said that many churches and conventos are on United States land. It is said that rental is due from the United States for occupation of churches and conventos. Of the very nice questions thus arising, some might be settled, perhaps after years of litigation in the ordinary courts of justice, though others could not be disposed of in this way. Especially is this true of certain questions which I shall now briefly state: The transfer of sovereignty from Spain to the United States had been preceded by two revolutions among the Philippine people against Spain. The popular hostility was chiefly manifested against the members of four religious orders who had, in addition to their clerical duties as parish priests, been charged by the Spanish Government with the performance of a burden of local political and police duties, and in the performance had been held responsible by the people for the oppression of which it was said that Spain was guilty.

Three of these orders were owners of large tracts of valuable agricultural lands, and in each revolution the hostility toward the members of the religious orders was, in provinces where this land lay, agrarian as well as political. The justice or injustice of this hostility

is, as I conceive, aside from the issue. It exists and is the result of years of peace and war. It can not be ignored. The members of these orders have not yet returned to their parishes, which are being administered by the native clergy, and they have not yet resumed possession of their lands. An attempt by them to assume the rights of landlords or to become parish priests again will, it is confidently believed, seriously disturb the peace and order of the islands.

On behalf of the Philippine government, it is proposed to buy the lands of the religious orders with the hope that the funds thus furnished may lead to their withdrawal from the islands, and, if necessary, a substitution therefor, as parish priests, of other priests whose presence would not be dangerous to public order. It is further hoped that church titles, rentals, and prices might all be fixed either by arbitration or in a general compromise. Authority to purchase the agricultural lands of religious orders must ultimately come from the Congress of the United States, but a bill granting such authority has been favorably reported to both Houses of Congress, and there is every prospect of its passage before the close of the session, which will probably end in July. The bill leaves the method of purchase to the Philippine government, so that the negotiations concerning such a purchase are not now premature.

We now have in the Philippine Islands a Christian people of 6,000,000 souls, substantially all Roman Catholics, just awaiting the dawn of a new political and business life. What a burden upon them, what a burden upon their church, to which they are devoted, that deep-seated political and agrarian hostilities growing out of the troubles of a previous régime should be permitted now to cast their shadow upon their religious and political welfare. Should such questions be left open to a continued discussion with all the unfortunate heat likely to be engendered? Is it not wise that in a straightforward business method a basis for a general settlement and compromise should be reached in an amicable conference between the representatives of the head of the Roman Catholic Church and agents or officials of the Philippine and United States Governments? In such a conference concessions and compromises may be expected if they do not involve a violation of principle, and the supreme benefit, both to the state and the church, of an amicable settlement will make each side bend to reach it.

I do not need to assure Your Holiness that the attitude of the United States and of the Philippine government is not one of unfriendliness toward the Roman Catholic Church. The policy of separating church from state, as required in the Constitution of the United States, does not indicate hostility to religion or to the maintenance of any church. On the contrary, the founders of our government were profoundly convinced that religion must be upheld for the benefit of the state, and

that it was the true basis for the morality of the citizen; and in practice it will be found that in the United States the rights of all churches, both as to property, administration, and practice of religion, are observed and protected with even more scrupulous care than in some countries where church and state are said to be united. I venture to point to the prosperity of the Roman Catholic Church in America as indicating that it has nothing to fear from the extension of the same rule over the Philippine Islands. The Government of the United States treats all churches and creeds alike. It protects them all, but favors no one against another. It is not engaged in proselyting for one church or creed, and any officer using his office for such a purpose, directly or indirectly, ought to forfeit his office.

I do not intend further to weary Your Holiness with a detailed statement of the questions likely to arise in the conference now at hand. When Your Holiness shall refer us to dignitaries of the church authorized to enter upon the negotiation, the questions will then be stated at length, as set forth in instructions given to me by my immediate superior, the Secretary of War.

Under my instructions I am authorized to call others to my assistance as my advisers and counselors in the negotiations. I have asked the Right Rev. Thomas O'Gorman, bishop of Sioux Falls, the Hon. James F. Smith, associate justice of the supreme court of the Philippines, and Maj. John Biddle Porter, judge-advocate department, United States Army, to assist me in this way, and, with Your Holiness's permission, I now present them.

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*Letter referred to in the foregoing address.*

WHITE HOUSE,  
Washington, May 9, 1902.

**YOUR HOLINESS:** In felicitating you upon your entry into the twenty-fifth year of your Pontificate, I beg to ask your acceptance of the volumes which Governor Taft will present to you from me.

I most cordially thank you for your repeated expressions of good will to this country; and, trusting that you may have many happy and prosperous years of life, I am,

With regard, faithfully yours,

THEODORE ROOSEVELT.

His Holiness POPE LEO XIII.

The instructions of May 9 with the construction included in dispatch of June 5 were thereafter presented to Cardinal Rampolla, who replied to the views therein expressed by the following memorandum:

[Translation.]

JUNE 22.

**EXCELLENCY:** After a mature examination of the instructions which Your Excellency received from Mr. the American Secretary of War concerning the religious questions in the Philippine Islands, the Holy Father has commanded me to address to Your Excellency the accompanying document, in which are expressed the appreciations of the Holy See on that subject.

With feelings of particular regard, I have the pleasure to subscribe myself, with the most distinguished consideration,

Your Excellency's most devoted servant,

M. CARD. RAMPOLLA.

H. E. Mr. W. H. TAFT,

*Civil Governor of the Philippine Islands.*

The decision of the Government of the United States of America to send to Rome a commission for the purpose of treating with the supreme authority of the Catholic Church concerning various questions of common interest about the Philippine Islands and of settling them by means of amicable accord has been welcomed by the Holy See with a special pleasure. For if the Government of the United States has by a wise and approved principle judged this manner of direct understanding to be preferable in order to regulate the situation created for a population of several millions, exclusively Catholic, that has entered the sphere of its political dominion, likewise the Holy See on its part deems that this method of direct understanding answers best of all others the reciprocal interest of both parties, and that as at present so also in the future it will be of aid to the good government of those people.

The Holy See, animated by a friendly disposition toward the American Government, has hastened to examine with benevolent deference the views and wishes of said Government set forth in the instructions of the Secretary of War to the Civil Governor of the Philippine Islands, and does not hesitate to declare that, saving the religious interests of those people, to the protection of which she can never be wanting, it is disposed to second them in the just measure; and it confides in the feelings of justice and equity of the American Government and believes that it likewise will hold in due consideration the views and wishes of the Holy See to secure the rights of the church and the spiritual welfare of the Catholics in the Philippine Islands.

The Holy See is not ignorant of the fundamental principle of the American Government in regard to peoples subject to its dominion,

which require the separation of the church from the state. However, the Holy See can not suppose that in the application of these principles the Government does not take into account the situation *de facto* of the peoples governed by it. Now, the fact is that in the Philippine Archipelago its sovereignty is exercised over a population of 7,000,000 entirely Catholic, deeply attached to their faith, and for many centuries educated and formed in their traditions, habits, aspirations, in their very life, according to this faith. It is to be hoped, therefore, that the American Government, not only for reasons of equity, but also for reasons of social and political order, will know how to find a way of reconciling the requirements of its fundamental system with the requirements of the situation *de facto* and to live in good harmony with the Catholic Church and the authorities that represent and protect its interests.

Regarding the religious orders, of which mention is made in the instructions of the Secretary of War, the Holy See can not give its adhesion to all the views contained therein; nor does it consider opportune to enter into a discussion on that point. Placing itself entirely on the practical ground of the provisions required by the new situation, the Holy See admits first of all that the system obtaining under the Spanish domination and the mixing up of the religious in the civil administration might have created for them in a portion of the people a certain ill will. How to eliminate this antipathy the Holy See has already devised means, gradually by opportune measures to recall the regulars to the life proper to their institute, to devote themselves exclusively to spiritual ministry, to abstain from any kind of interference in things appertaining to the civil authority, to consolidate mutual peace of life between the people and clergy of the islands, to uphold the principle of authority, to imbue the masses with morality, and to make themselves the instruments of civilization and social order.

It is also the intention of the Holy See to introduce in the Philippine Islands religious of other nationalities; and, so far as possible, from the United States, and to intrust to them, when sufficiently instructed in the local dialects, the spiritual care of the faithful. As to the Spanish religious in particular belonging to the orders mentioned in the instructions, not even they should be denied to return to those parishes where the people is disposed to receive them without disturbance of public order; and, if in some parishes where it is evident that they are desired, or are favorably regarded by the whole or the great majority of the people, obstacles and difficulties should be interposed on the part of some disturber of peace, the Holy See trusts that the American authorities by the ordinary means of civil justice will know how to protect the rights of the religious themselves and the wish of the people. Finally, the Holy See will not neglect to promote at the same time the better ecclesiastical education and training

of the native clergy in order to put them in the way, according to their fitness, of taking gradually the place of the religious orders in the discharge of the pastoral functions.

The Holy See likewise recognizes that in order to reconcile more fully the feelings of the Filipinos to the religious possessing landed estates the sale of the same is conducive thereto. Therefore it adheres in principle to the request made by the American Government saving the right of property of the legitimate possessor and an estimate of the value of the lands conformable with the principles of justice and equity. Considering, however, that this is a complicated question, requiring special study of the facts of the case, and can not be solved with precipitation, the Holy See declares it is disposed to furnish the new apostolic delegate who is to be sent to the Philippine Islands with necessary and opportune instructions in order to treat amicably this affair in understanding with the American Government and the parties interested, and so to arrive at fixing a satisfactory accord, whether on the value of the lands or the conditions of the sale.

In the same way wherever there exists a doubt as to the legitimate ownership of lands or buildings actually standing in the name whether of the state or of the church, the Holy See admits that by common accord the civil and ecclesiastical authorities take under examination the respective titles of property, naturally not omitting the title arising from legitimate possession; and the lands or buildings will be adjudged according to these titles to whom by right. On this point also the Holy See will not fail to give due instructions to the apostolic delegate.

The damages sustained by the Catholic Church in the Philippine Islands on account of the war constitute an object worthy of special attention in an amicable arrangement with the American authorities. Besides the acts of vandalism perpetrated by the insurgents in the destruction of churches and the appropriation of sacred vestments, there were occupied by the American Government episcopal palaces, seminaries, convents, rectories, and other buildings intended for worship, and these were also partly damaged. The Holy See learns with satisfaction that the American Government is not disinclined to indemnify according to justice the Catholic Church for such losses and damages; and this may be effected either by the restitution of buildings so occupied or by just compensation. On these matters the apostolic delegate will be instructed to come to an understanding with the American authorities and secure a just settlement.

As for what concerns Pious Trusts, the Holy See understands very well that the American system of government demands the separation of those belonging by right to the civil authorities from those belonging to the church authorities. To this end, however, it is proper first of all to observe that if the American Government succeeded to the Spanish Government in the sovereignty of the State and

in the political rights inherent thereto, it did not in the same way succeed in the attributions of a special and ecclesiastical character which that Government exercised in its capacity as patrons.

The new state of affairs has caused to cease radically everything connected with that patronage; nay, the American laws would not allow the governors of the Philippine Islands to exercise the powers of the civil governors of Spain as vice-regal patrons, whence it follows that the church can not renounce the right and the liberty of administering the pious trusts of ecclesiastical origin or of Catholic foundation which do not owe their existence to the civil power exclusively. Therefore there will be needed an accurate and impartial examination as to the origin of such foundations in order to ascribe to the state those that shall be recognized being within its competence, leaving the church to administer all others freely. And in order that such an examination be thorough, there should be determined the obligations and imposts which perchance burden the properties, whether private or public, in favor of the pious trust, educational or charitable, in order that by removal of every doubt and contest these obligations and imposts may be restored to their destination.

Finally the Holy See can not abstain from asking the American authorities suitable provisions for religious teaching in the public schools, especially the primary, and that the choice of teachers be made according to equitable principles, and principles such as do not wound the rights and feelings of a people entirely Catholic.

*Response of Governor Taft to Cardinal Rampolla's communication.*

JULY 3.

**YOUR EMINENCE:** I beg to acknowledge receipt of your favor of the 21st of June, No. 70,963, inclosing a communication of the views of the Holy See upon the questions arising between the Roman Catholic Church and the Philippine government, and discussed by the Secretary of War of the United States in his instructions to me, submitted through your eminence to His Holiness. It is a source of much gratification to note that the Holy See welcomes with especial pleasure and approves the coming of a representative of the President of the United States to Rome for the purpose of securing a direct understanding upon the questions mooted; and that in general the views of the Holy See are in accord with those expressed by the Secretary of War, though in one important particular, to wit, that of the religious orders, there seems to be a difference as to the method to be adopted to meet a recognized difficulty.

It is further observed in the communication of the Holy See that many questions are proposed to be referred to a new apostolic delegate to be sent to Manila. It is respectfully suggested that in this manner much of the benefit of the direct understanding between the



church and the Philippine government, which is properly valued by both parties, will be lost. The only efficient method of securing such a direct understanding would seem to be the making and signing of a definite contract between the parties or their representatives, which should leave as little as possible to uncertainty and future negotiation, and which should determine the main lines along which harmony and cooperation between the state and the church may be secured. The main purpose of the present communication is to formulate such a contract.

An analysis of the instructions of the Secretary of War will show that the purpose of the President of the United States and the Philippine government is to make an agreement with the supreme head of the church, under which the former shall perform four separate stipulations in consideration of the compliance with certain conditions by certain religious orders and their members, over whom the Holy See, it is expected, can exercise control and for whose conduct in respect to such conditions it can contract.

First. The most important stipulation of the United States is to buy the agricultural landed estates of the three religious orders, the Dominicans, the Augustinians, and the Recoletos. The United States Government and the Philippine government desire to submit the question of the fair value of the lands to be bought to a tribunal of arbitration to be composed of five members, two to be appointed by His Holiness, two to be appointed by the Philippine government, and one, the fifth, to be selected by an indifferent person, like the governor-general of India. The expenses of this tribunal, including the compensation to each one of its members, the Philippine government is willing to pay. The time within which the tribunal should meet in the city of Manila should be fixed not later than January 1 next, for the situation presents an emergency.

The tribunal should be given power to hear evidence; to view the lands, as may be convenient, and to render an award in accordance with a majority vote of the members. The valuation of the lands should be fixed in Mexican dollars, because that is the usual standard of value which now prevails in the islands and is the one in which estimates of experts will naturally be given. The terms of payment, it is suggested, should be one-third cash within thirty days from the report of the award and the delivery of the deeds of the land purchased, one-third in nine months after the first payment, and the remaining one-third in eighteen months after the first payment. The Philippine government would have no objection to paying the whole price in cash at the delivery of the deeds, except that, because under the proposals about to be made the performance of certain conditions by the religious orders is to be postponed, it is fair that payment of delayed installments should correspond to the performance of such

conditions. It would seem that interest at the rate of  $4\frac{1}{2}$  per cent on the delayed payments would be fair. The payments ought to be made to the person designated by the Holy See to receive the same.

Second. It is understood that a large number of the parish churches and conventos or rectories, as well as some diocesan churches and buildings, stand upon land the title to which was in the Crown of Spain, and passed by the Treaty of Paris to the Government of the United States. The Philippine government is willing to convey such lands to any officer of the church to be designated by His Holiness for the use and benefit of the Catholic people of the respective parishes in which such churches and conventos stand, or for the use of the proper diocese, as the case may be. In some few cases the titles to the parish churches and conventos are claimed by the respective municipalities in which they are situated. Under the treaty of Paris the United States Government is bound to respect equally the titles of the ecclesiastical corporations and of municipal corporations. The conveyance by legislative act herein proposed must therefore be subject to the claims of title, if any, made by the respective municipalities, which claims can be tried in the ordinary courts of justice.

Third. It is hoped that when the apostolic delegate competent to act for the Holy See visits the islands he may take up with the Philippine government the educational and charitable trusts now in dispute, and that they may agree by compromise on those which should be conducted under the direction of the civil government and those which should be conducted under the direction of the church; but should it be impossible to agree upon such a compromise, then it is proposed to submit all the disputed questions of this character to the tribunal of arbitration constituted under the first head, which shall hear the causes as in a court and make the award as above provided, and that among the questions to be submitted to such tribunal shall be the one arising upon the San Jose foundation now pending in the supreme court of the islands.

Fourth. The United States Government has occupied many churches, conventos, and other buildings of the Roman Catholic Church and its orders in the islands for a year and sometimes for a longer period, and has as yet, it is understood, paid no rental therefor. It is proposed to ascertain the reasonable rentals and a certain class of damages, if any are proven, for the buildings thus occupied by means of a finding of the persons constituting the tribunal of arbitration already described. The United States, it is understood, has never included and paid in compensation for such occupancy as this any damages, except for injury or alteration to the property authorized by the commanding officer of the occupying troops, either expressly or tacitly, nor is compensation ever allowed for injury done to buildings in the train of war.

It will perhaps turn out in some cases that the churches and con-

ventos were in villages in which the whole population was engaged in insurrection against the United States, including the priest in charge, and in such a case it is proposed to leave open to the United States the defense that it was occupying only enemy's property during the time of war and was not liable therefore to pay compensation. Of course the validity of such defense must be submitted to the members of the tribunal. The Secretary of War, under whose general authority the buildings were occupied has authorized me to agree to this method of ascertaining the amount due, but as there is no present authority in the laws of the United States to submit the question for final arbitration, the Secretary can only agree to submit the ascertained result to Congress for its action. The money to be paid in these instances is not the money of the Philippine government, but the money of the United States, and it can only be drawn from the Treasury on the appropriation of Congress. There is no probability that Congress would refuse to provide the money to satisfy the conclusion thus fairly reached.

The Philippine government proposes to comply with the preceding stipulations on certain conditions. An obviously just condition is that no money shall be paid for the lands to be purchased until proper conveyances for the land shall have been made to the Philippine government. The fact is well known to the Holy See, as to the Philippine government, that the three orders—the Dominicans, the Augustinians, and the Recoletos—have transferred their landed estates to promoters or promoting companies with a view to the carrying on of agriculture or to the rental or sale of the lands; but it is also well known that the three orders have retained a very large interest in the lands by becoming holders of the stock in the promoting company or by contract with the original promoter, and that the Holy See may therefore control the sale of these lands and the making of the proper conveyances by its power to control religious orders.

By the next condition it is to be agreed on behalf of the Pope that all the members of the four religious orders of Dominicans, Augustinians, Recoletos, and Franciscans now in the islands shall withdraw therefrom after two years from the date of the first payment upon the purchase price of the lands under this agreement. A sufficient number of them, it is provided, may remain to continue the schools, university, and conventual churches now conducted by them until the close of such two years, when they shall withdraw. It is further provided that the remainder shall withdraw from the islands, one-half within nine months after the first payment of purchase money and one-half after eighteen months. An exception is made in favor of any member of these orders who has been able to avoid the hostility of the people and to carry on his duties as parish priest in his parish outside of Manila from August, 1898, to the date of this agreement. It

is certain that such a priest is popular with the people, and it is not desired to separate him from them.

This exception is not extended to friars who have acted as parish priests in the city of Manila, because no such inference of popularity can be drawn as to them from their immunity from molestation in a city always occupied by American forces. It is further in effect agreed that no Spanish members of these orders shall be substituted for those withdrawn. The only purpose that the American Government has in proposing this condition is to secure political peace and an absence of disturbance. The Filipino people as a whole are deeply incensed against the members of these four orders in the islands, because responsible, as they suppose, for the alleged oppressions of Spain. The members of the hierarchy of the church were all selected from these orders, and the people understood that in the heads of the orders, resident in Manila, where were their churches, conventos, and colleges, was deposited almost the whole of the political power exercised by Spain.

Nor was this understanding without foundation, for by the laws in force under the Spanish régime the heads of the religious orders and the head of the hierarchy, the archbishop of Manila, were of the council of the governor-general of the islands. These orders have a newspaper which is still published by them, and which is in spirit anti-American, anti-Filipino, and pro-Spanish; and they thus confirm in the minds of the people the reason for their continued hostility. It may be added that the assessed valuation of the real estate and buildings of the religious orders in Manila is \$5,901,978 Mexican, while the estimated value of the property owned by the Roman Catholic Church is only \$3,678,927 Mexican, a fact full of significance in a discussion of the power of the religious orders in Manila, especially when it is considered that in addition to their Manila property they own a large amount of invested personal property as well as the agricultural lands now proposed to be bought.

It may be added that the Manila lands and buildings of the religious orders have largely increased in value in the last two years, and can be sold quickly if desired. Should the agreement now proposed be carried out, and the large sum which will undoubtedly be awarded as the purchase price of the agricultural lands in question be paid, the people will expect that with such a nucleus and such great financial power the four orders will continue the powerful influence always exercised by them from Manila over the clergy in the parishes. The retention of any considerable number of the Spanish members of such orders in Manila will, therefore, very much neutralize the good effect of the assurance that the Spanish members of such orders will not return to the parishes.

It is, of course, well understood that His Holiness desires to retain the churches of these orders in Manila, and also to retain the schools

and university established and conducted by them; but it is suggested that these churches, schools, and university may under this agreement be conducted by the Spanish friars of other and less unpopular orders, or, if need be, by non-Spanish members of the same orders. The changes proposed, however, it seems to the Philippine government, to be necessary to convince the Filipino people that the old régime of the Spanish friars of these four orders is ended.

Under (c) it is provided that in all parishes except the missionary parishes of the Jesuits and those in which popular members of the four orders have remained unmolested, only secular priests or members of religious orders that are not Spanish and whose presence in the parish will not disturb the peace or order thereof shall be appointed as parish priests and that secularized Spanish members of religious orders shall not be appointed as secular priests under this paragraph.

It would be simpler, and more certainly secure the purposes of the Philippine government, if the members of the four religious orders—of any nationality—for the immediate future should not come into the islands; but in deference to the understood reluctance of the Holy See to acquiesce in what might be construed as a criticism of the four religious orders as such, the clause has been drawn with a narrower restriction.

It is hoped that the restrictions in (b) and (c) will meet the views of His Holiness, and that he will understand that they are inserted solely for the purpose of securing what is absolutely essential to the progress both of the church and government, peace and contented feeling among the people. The Philippine government has not the slightest desire to interfere with the progress of the Catholic religion or its teaching in the Philippine Islands.

The most careful consideration has been given to what is said in the communication of the Holy See in respect to the religious orders in the Philippines and the means proposed to be adopted by the Holy See for avoiding the antipathy which the regulars now encounter in the islands, but with the utmost deference, it seems to the Philippine government that the means are not adequate to meet the emergency which alone justifies it in taking any interest in the matter. Nothing will calm the fears of the people and nothing produce contentment with church and government except the definite knowledge from such a contract as that here proposed that the Spanish friars of the four orders are to leave the islands at a definite time, and are not to return to the parishes or exercise from Manila a controlling influence there over the parish priests. It is hoped that in view of these facts, which are recited not to reflect on the friars, but only to show the *de facto* condition, the Holy See will deem it proper to assent to the proposed provision on this subject.

I accompany this letter with a form of agreement proposed for signature. The Philippine government bill, which authorizes the pur-

chase of the lands of the religious orders, has passed both Houses of Congress and has received the approval of the President and is now the law.

In closing this communication I desire to refer to the last clause of the communication of the Holy See with respect to the religious instruction in the public schools. My instructions do not permit me to discuss the subject, but I may properly refer Your Eminence to section 16 of the general school law of the Philippine Islands, a copy of which I inclose.

It is not improper for me to say that I have submitted by cable the full text of the views of the Holy See, as communicated by Your Eminence to me, and also the form of contract which accompanies this letter, and that I have been directed to submit the proposed contract as that which the President of the United States and the Philippine government desire in the premises.

I avail myself of this opportunity to assure Your Eminence of my most distinguished consideration, and to subscribe myself,

Your Eminence's most obedient servant,

WM. H. TAFT.

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[Extract from Philippine school law (act 74) submitted with foregoing document.]

SECTION 16 OF THE GENERAL SCHOOL LAW OF THE PHILIPPINE ISLANDS.

No teacher or other person shall teach or criticise the doctrines of any church, religious sect, or denomination, or shall attempt to influence the pupils for or against any church or religious sect in any public school established under this act. If any teacher shall intentionally violate this section, he or she shall, after due hearing, be dismissed from the public service.

*Provided, however,* That it shall be lawful for the priest or minister of any church established in the pueblo where a public school is situated, either in person or by a designated teacher of religion, to teach religion for one-half an hour three times a week in the school building to those public-school pupils whose parents or guardians desire it and express their desire therefor in writing filed with the principal teacher of the school, to be forwarded to the division superintendent, who shall fix the hours and rooms for such teaching. But no public-school teacher shall either conduct religious exercises or teach religion or act as a designated religious teacher in the school building under the foregoing authority, and no pupil shall be required by any public-school teacher to attend and receive the religious instruction herein permitted. Should the opportunity thus given to teach religion be used by the priest, minister, or religious teacher for the purpose of arousing disloyalty to the United States, or of discouraging the attendance of pupils at such public school, of creating a disturbance of public order, or of interfering with the discipline of the school, the division superintendent, subject to the approval of the general superintendent of public instruction, may, after due investigation and hearing, forbid such offending priest, minister, or religious teacher from entering the public-school building thereafter.

## FORM OF AGREEMENT.

This agreement between Cardinal Rampolla, cardinal secretary of state to His Holiness Leo XIII, representing His Holiness, and William Howard Taft, civil governor of the Philippine Islands, representing the President of the United States and the Philippine government, witnesseth that:

First. The Philippine government agrees to buy all the agricultural lands, buildings, irrigation plants, and other improvements thereon, situate in the Philippine Archipelago, of the Dominican, Augustinian, and Recoleta orders, and to pay therefor a reasonable and fair price, to be fixed in Mexican dollars by a tribunal of arbitration to be composed of five members, two to be appointed by His Holiness the Pope, two by the Philippine government, and the fifth to be appointed by the governor-general of India. The tribunal of arbitration shall begin its session in Manila on the first day of January, 1903, shall receive evidence on the question of value to be adduced by the two parties to the controversy, shall view such of the lands as the tribunal shall deem necessary and convenient, and shall make and certify an award of the value of such lands to the civil governor of the Philippine Islands, and to the Archbishop of Manila or the apostolic delegate of His Holiness. A majority of the tribunal may make the award. The lands to be appraised and purchased shall include all the agricultural lands owned by the three orders named on the first day of May, 1898, in which said orders or other associations, subject to the control of the head of the Catholic Church, still retain a majority interest by virtue of ownership of stock in the company or companies now holding title to the same, or by contract with the individuals in whom is now the legal title. The expenses of the tribunal of arbitration, including reasonable compensation to each of the members, shall be paid by the Philippine government. The price shall be paid in three installments—one-third cash within thirty days after the certifying of the award to the civil governor of the Philippines and a tender of the necessary deeds of the land to him; one-third in nine months after the date of the first payment, and the remaining one-third in eighteen months after the date of the first payment, the deferred payments to bear four and one-half per cent interest from the date of the first payment. The purchase money shall be paid to the representative of the Roman Catholic Church to be designated by the Pope, and the receipt of such representative shall be a full acquittance to the extent of the amount paid of the Philippine government.

Second. The Philippine government agrees to release by legislative act to the representatives of the Roman Catholic Church, designated by His Holiness the Pope, all lands or enclosures upon which Roman Catholic churches and conventos now stand, which were never by deed

or formal grant conveyed by Spain to the Roman Catholic Church, the same to be held by such representatives for the use of the Roman Catholics of the parishes in which such churches and conventos, respectively, stand; without prejudice, however, to the title, if any, of the municipality in which any such church or convento may stand, to such land to be asserted in ordinary courts of law.

Third. The Philippine government and the Holy See will by compromise, if possible, reach an agreement in respect to the charitable, educational, and other trusts, concerning which there is now dispute as to the proper trustee, by determining which of the trusts, if any, shall be administered by the civil government and which of the trusts, if any, shall be administered by the Roman Catholic Church or its agents, and on failure to reach an agreement said principals will abide by the finding of the tribunal of arbitration mentioned in the first paragraph, to whom all such questions shall be submitted as a court of final jurisdiction, and shall include the issue arising in respect to the San Jose foundation now pending in the Supreme Court of the islands.

Fourth. The reasonable rentals, if any, which ought to be paid for conventos and other church buildings which have been occupied by United States troops during the insurrection, shall be ascertained, for the information of both parties, by the persons who constitute the above-mentioned tribunal of arbitration. In each case they shall take into consideration the question whether or not the church or convento was enemy's property and was properly occupied in time of war without incurring obligation to pay rent. It is understood that the rental to be ascertained may include allowance for injury done, or alterations made in course of occupation, to the buildings occupied when expressly or impliedly authorized by commanding officers of the occupying troops, but should not include injury arising from the torts or unauthorized acts of individual soldiers, and should not include damages, the result of the train of actual war. The Secretary of War undertakes to present to the Congress of the United States the results of the inquiry herein provided for, with request for authority and means to pay the rentals so ascertained to be due.

The foregoing stipulations are made on the following conditions:

(a) That titles of the three religious orders to the agricultural lands mentioned in paragraph one, and of any subsequent grantees thereof, shall be duly conveyed by deeds of usual and proper form to the Philippine government, and no part of the purchase price shall be paid until this provision is complied with.

(b) That all members of the four religious orders of Dominicans, Augustinians, Recoletos, and Franciscans now in the Philippines shall withdraw, one-half within nine months after the date of the first payment and one-half within eighteen months thereafter, and meantime



they shall not teach, preach, do parish work, or work of inspection in the parishes of the archipelago; except that for a period of two years after the first payment a sufficient number of such members may remain to conduct the schools, university, and conventual churches now conducted by them, withdrawing, however, from the islands at the close of such period; and except, further, that any such member who shall have continuously discharged his duty as parish priest in any parish outside of Manila, from August, 1898, to the date hereof, may continue as such and not withdraw from the islands; and that no Spanish members of said four orders shall hereafter be sent to the islands.

(c) Except as provided in (b) and in missionary parishes now conducted by Jesuits, only secular priests or non-Spanish members of religious orders whose presence in the parishes will not disturb the peace or order thereof shall be appointed as parish priests. The term "secular priests" as used in this paragraph shall not include secularized Spanish members of religious orders.

His Holiness on his part hereby agrees to the stipulations and conditions hereinbefore set forth, and contracts that the four religious orders herein named, and their members, shall comply with the stipulations and conditions on their part to be performed.

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[Translation.]

*Answer to communication from Governor Taft of July 3.*

MR. THE GOVERNOR-GENERAL: I have the honor to acknowledge the receipt of the letter which you were kind enough to address to me on the 3d of this month with a scheme of agreement which the American Government would desire to arrange with the Holy See, to regulate, in the Philippine Archipelago, the situation on certain points which touch the Catholic Church. I hasten to thank you for the two documents, and in my turn I permit myself to transmit to you inclosed a counter project, which expresses the intentions and the point of view of the Holy See on these same points, and in adding to it in this letter certain explanations.

By the simple reading of the counter project you may, Mr. the Governor-General, observe that on the economical points the views of the Holy See accord almost entirely with those of the American and Philippine governments. The modifications which have been introduced, and which you will observe, only complete and make more precise, it seems to me, the text of the convention. If, in your opinion, any point may be made still more clear, I should be happy to consider your views. The principal difference between the two projects is in relation to the religious of Spanish nationality in the archipelago. The Holy See finds it impossible to admit that which is proposed under

the letters B and C at the end of the project. To begin with, the Holy See can not admit that there is a connection between the stipulation of the first articles of the convention and the measures which it (the Holy See) proposes to take in order to cooperate in the pacification of the archipelago. In reality, these measures are part of the mission of the church in the world and are independent of the solution of economic questions. This solution must be inspired solely by the principles of natural justice.

If we now pass to an examination of the difficulty itself, it is very easy to prove that the Holy See can not accept the proposition of the Philippine government to recall from the archipelago in a fixed time all the religious of Spanish nationality—Dominicans, Franciscans, Augustinians, Recoletos, and to prevent their return in the future. In effect such a measure, not justified by a reason of force majeure, would be contrary to the positive rights guaranteed by the Treaty of Paris, and would put, consequently, the Holy See in conflict with Spain, who would have every reason to protest. Much more, such a measure would be, in the eyes of the Filipinos and of the entire Catholic world, the explicit confirmation of all the accusations brought against the said religious by their enemies, accusations of which the falsity, or at least the evident exaggeration, can not be disputed.

Finally, if the American Government, respecting as it does individual rights, does not dare interdict the Philippine soil to the Spanish religious of the four orders above named, how could the Pope do it, he, the common father of all, the support and born defender of the religious? On the other hand, without having recourse to this violent and extremely odious measure, the means which the Holy See counts upon taking are sufficient to set aside any fear or any preoccupation. The number of the Spanish religious remaining in the archipelago has much diminished, and as I had the honor to say to you, Mr. Governor-General, in my memorial of the 21st of June, the Holy See will try to introduce therein religious of other nationalities, and particularly, as much as possible, of the United States of America, and to confide to them the parochial ministry, hardly will they be sufficiently instructed in the language of the country. Besides, the representative of the Holy See will carefully see that all the religious of no matter what nationality, order, or congregation consecrate themselves exclusively to their spiritual work, without inserting themselves in any way in political questions, and in abstaining from any opposition to the established power.

This result will be all the more easy to attain since the resources of the religious will remain under the control of the supreme authority, to be devoted also to the spiritual needs of the church in the archipelago, besides which the representative of the Holy See, in accord with the diocesan authorities, will not permit the return of the Spanish

religious of the above-named orders in the parishes where their presence would provoke troubles or disorders; that if in such and such parishes, the totality or the great majority of the population desiring the return of the religious, certain disturbers should seek to create obstacles and difficulties, the Holy See again expresses its confidence that the American authorities will know how, by the ordinary means of justice, to protect the rights of the religious and the will of the population. Finally, not to retard the execution of this convention, the Holy Father consents that the school question in the Philippines be not insisted upon for the moment, but His Holiness hopes that his representative in the archipelago may have an understanding with you, Mr. the Governor-General, on this point of an importance so capital in a country almost exclusively Catholic.

Please accept, Mr. the Governor-General, the assurance of my high consideration, with which I am of your excellency the very devoted servant.

M. CARD. RAMPOLLA.

ROME, July 9, 1902.

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*Counter Project of Convention.*

ARTICLE I. The Philippine government buys, and the religious orders Dominican, Augustinian, and Recoleta, owners, sell, by the intermediary and authority of the Holy See, the lands to them belonging in the Philippine Archipelago.

ART. II. This contract comprehends all agricultural lands in Spanish haciendas, with houses, irrigation works, machinery for various industries thereon owned by the three above-mentioned orders, but does not comprehend houses and churches, parochial or conventual, with or without garden, nor country houses, with or without annexed property, which these orders may own outside of towns for their personal use.

ART. III. If the ownership of those haciendas has been transferred by shares to industrial corporations constituted for the exploitation thereof, then the object of this contract shall be all the shares retained by the three orders; and therefore such shares shall be passed over to the Philippine government.

ART. IV. The equitable price for these lands shall be fixed by a tribunal of arbitration composed of five members, of which two shall be named by the Holy See, two by the Philippine government, and the fifth by the common accord of the other four; and if such accord can not be reached, His Holiness the Pope and the President of the United States shall come to an understanding as to the choice of said fifth arbiter.

**ART. V.** The tribunal of arbitration shall begin its sessions the first day of January, 1903; shall gather more information as to the value of the lands; shall even, if it judges proper, inspect personally the lands, and afterwards shall remit to the civil governor of the Philippines and to the apostolic delegate a documented catalogue of the lands with their respective prices. The price shall be fixed by a majority of the tribunal, and such decision shall be without appeal.

**ART. VI.** The shares, or the title deeds of the lands which are the object of this contract, shall be duly transferred according to the forms used in American jurisprudence to the Philippine government before any payment therefor is made.

**ART. VII.** The price shall be paid by the Philippine government in Mexican dollars and in three payments, one-third thirty days after notification of the price and the delivery of shares and title deeds, one-third nine months after the first payment, one-third eighteen months after the first payment. The two last payments shall bear interest at 4 per cent, dating from the first payment. The payments shall be made to the representative of the church designated by His Holiness, and the receipt of the same shall be to said the Philippine government a receipt for the sum paid.

**ART. VIII.** The Philippine government by legislative act shall transfer to the person designated by His Holiness as representing the church full ownership of lands or enclosures on which are churches, cemeteries, or conventos, which were never so transferred by Spain formally and by written deed. Remain, however, safeguarded the rights of municipalities in the premises, which shall be duly proven in the ordinary courts of law.

**ART. IX.** The Philippine government and the Holy See shall come to an amicable accord as to existing trusts of charity or education which are in dispute, and shall determine which hereafter are to be administered by the civil power and which by the church or its agents. If such accord should not be reached in any given case, the tribunal of arbitration mentioned in Article IV shall decide the question. Said tribunal shall be competent, especially in the question relative to the San Jose trust now pending in the supreme court of the islands.

**ART. X.** The same tribunal of arbitration shall fix the equitable rent for conventos and other religious buildings that were occupied by the American troops during the insurrection. It is understood that such rent shall comprehend a just compensation for the deteriorations caused to said buildings by the American troops. In doubtful cases the tribunal shall decide whether the rent and the compensation are due. The Secretary of War will present to the Congress the conclusions of this investigation and ask the authorization and the funds to pay the sums fixed by the tribunal.

ART. XI. An equitable salary to the members of the tribunal of arbitration, as well as all expenses of the same in the execution of the above articles, shall be paid by the Philippine government.

ART. XII. The Holy See, in that sphere of action which is of its competence, shall use all its influence in the pacification of the archipelago and in favor of adhesion to the established government, and shall prevent all political opposition on the part of the clergy, regular and secular.

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*Governor Taft's response to Cardinal Rampolla's communication of July 9.*

ROME, ITALY, *July 15, 1902.*

YOUR EMINENCE: I have the honor to acknowledge the receipt of Your Eminence's communication of July 9th and to say that I have submitted the same in full by cable to the Secretary of War. His reply is so full upon the points touched upon in Your Eminence's letters of June 22d and July 9th that I venture to transmit the same to Your Eminence in the language of the Secretary's dispatch to me, which is as follows:

[Telegram.]

WAR DEPARTMENT,  
*Washington, July 14, 1902.*

TAFT, *Hotel Quirinal, Rome:*

I am much gratified by the expression of intention on the part of the Holy See to take the measures which are indicated by Cardinal Rampolla's memoranda of the 22d of June and of the 10th of July to recall the religious in the Philippine Islands to the life proper to their institutes, and to an exclusive devotion to spiritual ministry, abstaining from any kind of interference with things appertaining to the civil authority, and to introduce as much as possible the religious of nationalities other than Spanish, and particularly the religious of American nationality, and to concede to them the parochial ministry as soon as they shall be sufficiently instructed in the languages of the country. These measures, so plainly indicated as wise by the recognized facts in the Philippine Archipelago, are quite independent of any business or monetary consideration, and I feel that such contribution as you have been able to make to a full understanding of the facts, and the development of the purposes described, is sufficient compensation for your visit to Rome. It is believed that there will result a sure basis of mutual consideration and just treatment in the future relations between the church and state in the Philippines in regard to all specific questions which will have to be settled there.

Regarding the withdrawal of the members of the religious orders from the Philippines, it should not be understood that the Philippine government is asking to modify or in any manner affect the conduct of religious matters on the part of the Holy See, or on the part of the heads of the orders, or for any compulsory exclusion or proceeding whatever. It is rather that the Philippine Government, desires social results which it deems of great importance to the welfare of the Philippine people,

and which can be accomplished only by the withdrawal of this class of persons who have fortuitously been thrown into special and antagonistic political relations with the people. That government has proposed an arrangement which it supposed to be very advantageous to the church, and worth its own while to carry out, if the ecclesiastical authorities having the direction of the religious orders should see fit voluntarily to withdraw them from the islands. Such a voluntary withdrawal can not be considered a violation of any rights under the treaty of Paris or otherwise, or any reflection either upon the nation or upon the orders to which the persons withdrawing happen to belong.

The reasons making the withdrawal desirable are not religious or racial, but arise from the political and social relations which existed under the former government, and which have created personal antipathies menacing to the peace and order of the community. Such a voluntary withdrawal would not involve any confirmation of any accusations against the persons withdrawing or the orders to which they belong; and it is to be observed that we have made no such accusations. It would simply recognize the existence of the conditions which for several years past have been and now are preventing these particular agents from serving the church in the stations to which they were assigned and which would make their reemployment injurious to the community. In this matter the United States representatives in the Philippines are merely endeavoring to meet the wishes, as well as the needs, of the Philippine people.

It is not the United States Government which objects to the presence of the friars; it is the Catholic population of the Philippine Islands. The lay Catholic population and the parish priests of native and non-Spanish blood, are practically a unit in desiring both to expel the friars and to confiscate their lands out of hand. This proposed confiscation without compensation of the church lands was one of the fundamental policies of the Insurgent Government under Aguinaldo. Recognizing the intensity and practical unanimity of this feeling among the Filipinos, and at the same time desiring to avoid causing loss to the church, the United States Government representatives proposed to pay for the lands out of the public funds if the friars would retire from the islands and give place to other religions of their own faith who might be able to accomplish for their religion what they themselves had so signally failed to accomplish. In making this proposal the United States representatives were well aware that financially it was only of benefit to the church, for the lands are unproductive and held in adverse possession by the natives, who refuse to pay rent, while the former congregations of the objectionable friars now refuse to receive them, and they could only be henceforth restored to their parishes by such affirmative governmental action as under our Constitution can not be taken.

It is the desire to accomplish the removal of this cause of disturbance and discord that has led me to approve that clause of your proposal which would involve the government of the Philippines in a large and undefined obligation, for the purchase of lands in advance of a specific ascertainment of their values, and of the estimated prices which we can reasonably expect to receive from them when we in turn offer them for sale; and to the clauses which would anticipate the authority of Congress in regard to the ascertainment of rentals and damages in the course of occupation, and the conveyance of church

lands provided for in your proposal. If this object is not to be assured, then the arrangement sought should be quite different in form, and should more closely follow the suggestions of Cardinal Rampolla in his memorandum of June 22d, wherein he says that an estimate of the value of the lands, conformable with the principles of justice and equity, is a complicated question, requiring special study of the facts of the case, and can not be solved with precipitation, and declares the disposition of the Holy See to furnish the new Apostolic Delegate, who is to be sent to the Philippines, with necessary and opportune instructions, in order to treat amicably this affair in understanding with the American Government and the parties interested, and so to arrive at fixing a satisfactory accord whether on the value of the lands or the conditions of the sale; and wherein he further says that the Apostolic Delegate will be instructed upon all the matters touched upon in the memorandum to come to an understanding with the American authorities and secure a just settlement.

Following the course thus proposed by His Eminence and having secured a full and definite enumeration of the various parcels of property in which the religious orders are interested, and which they are willing to sell, it will be the duty of the Philippine government to determine for itself what price it is willing to pay. That price will of course be largely affected by the practical benefits to be derived from the purchase in view of all the facts then existing. This course also makes it possible to take into due consideration the fact which now appears, that contrary to our former supposition the real and substantial title to the lands in a great measure has passed out of the religious orders and is vested in corporations which they can not entirely control, and which hold the lands for the purpose of lawful gain and are alone competent to sell them. It may well be that the prices which you will feel justified in offering for the lands will be acceptable.

The whole matter may thus be disposed of by friendly agreement, in conformity with the ordinary methods pursued in business affairs. I believe that the good understanding which has been reached between you and the ecclesiastical authorities in Rome can not fail to do away with the probability of friction or difficulty. In the same manner I will direct the General Commanding in the Philippines to ascertain, by the customary methods, what buildings belonging to the church have been occupied by American troops, and for what periods; what damage has been done, and in each case what reasons, if any, exist for denying an obligation to pay rentals and damages; and I shall hope that the conclusions thus reached will be satisfactory to the church.

A similar treatment of all the subjects mentioned in your proposition may with equal readiness be followed.

While it is to be regretted that the authorities having control of the religious orders do not now see their way to make a definite agreement for the withdrawal from Manila of the friars formerly in the parishes, yet it is hoped that pending the settlement of these various matters they will reach the conclusion that it is wise to do the same thing of their own motion and irrespective of any agreement to that effect. However that may be, you should assure the authorities of the church that we shall at all times do all in our power to continue the good understanding already reached and to agree upon such action as shall be for the benefit of all; and further assure them of our high appreciation of the courtesy and consideration with which the expression of your views and wishes has been received.

As preliminary to the treatment now proposed it is desirable that the authorities of the church should arrange to forward to you as soon as practicable full and definite lists (a) of the property which they are willing to sell, and of the precise relations which they hold to the title of those properties. If their relation to the title is by ownership of the stock, then the total stock of corporation, amount of stock which they hold, and the officers of the corporations. (b) Of the churches, convents, etc., which they claim to have been occupied by American troops, and for which rentals or damages are claimed, and with the details of the claim. (c) Of the church properties, formal title to which remained in the Spanish Crown at the time of cession, and formal conveyance of which from the Government is desired. It should be observed as to these that no authority has been granted by Congress to make such conveyance unless it be as a part of a general settlement, including purchase of the lands. (d) A statement of the various charitable and educational trusts which the authorities of the church consider should be regarded as devolved upon the church rather than upon the state.

Root, *Secretary of War.*

I have much pleasure, Your Eminence, in accordance with the instructions of the Secretary of War, to assure you, and through you the Holy See, that the officers of the Philippine government and of the United States Government in the Philippines will at all times do all in their power to continue the good understanding already reached, and to agree upon such action as shall be for the benefit of all. I desire sincerely to express my high appreciation of the courtesy and consideration with which the Holy See has received my communications, and the promptness with which, in order to accommodate my early official engagements in Manila, they have been considered and answered on subjects that might reasonably have occupied a longer time.

In compliance with the suggestion of the Secretary of War, I have the honor to request, if it is in accord with the wish of the Holy See, that negotiations concerning the various subjects touched upon in the proposals and counter proposals be continued in Manila between the Apostolic Delegate and myself on the broad lines indicated in this correspondence, after the information under the four heads referred to by the Secretary shall be secured and presented. I much regret that we can not now reach a more precise agreement under which less should be left to future adjustment; but I venture to concur in the expression of satisfaction by the Secretary that we have reached a general basis for solution of so many of the questions awaiting settlement in the Philippines between the Church and the State.

I have the honor to assure Your Eminence of my most distinguished consideration, and to subscribe myself,

Your Eminence's obedient servant,

W. H. TAFT.

His Eminence Cardinal M. RAMPOLLA DEL TINDARO.

*Secretary of State to His Holiness.*



*Cardinal Rampolla's reply to Governor Taft's communication of July 15.*

**MR. THE GOVERNOR-GENERAL:** I hasten to acknowledge the receipt of the letter by which you have kindly communicated to me the cablegram which the Secretary of War of the United States, Mr. Root, has sent in answer to my last note of the 9th instant, which accompanied and explained a counter project of the Holy See for the regulation of the religious affairs of the Philippine Islands. While thanking you, Mr. Governor-General, for this important communication, I am happy to be able to assure you that the Holy See has learned with the most lively satisfaction the high consideration by which Mr. Root, in the name of the Government of the United States, recognizes the fitness of the measures which the Holy See, independently of the solution of any economic question, designs taking to ameliorate the religious situation of the archipelago and to cooperate in the pacification of the people under the American sovereignty—measures indicated in my memoir of the 21st of June and in my letter of the 9th of July.

These declarations of the Secretary of War do honor to the deep political wisdom of the Government of the United States, which knows how to appreciate the happy influence of the Holy See for the religious and civil elevation of peoples, especially of Catholic peoples. With equal satisfaction, the Holy Father has taken into account the assurance given by Mr. Root that the American authorities in the Philippine Islands and the Government of the United States will put forth all possible efforts to maintain the good understanding so happily established with the authorities of the Catholic Church. On his part the sovereign Pontiff will not fail to give to the Apostolic Delegate who will be soon sent to the Philippine Islands the most precise instructions conformable to my memoir of the 21st of June and my letter of the 9th of July.

The main lines for future negotiations indicated in the views of these two documents having been accepted by the Secretary of War, the representative of the Holy See in the archipelago will enter into relations with the American authorities in the Philippines on the four points indicated by the Secretary of War at the close of his cablegram. The Holy See does not doubt that the mutual confidence and the combined action of the representatives of the Holy See and the American Government will easily produce a happy solution of the pending questions and inaugurate for that noble country a new era of peace and true progress.

It is to me, Mr. the Governor-General, an agreeable duty to be able in ending this letter to render homage to the very great courtesy and high capacity with which you have filled the delicate mission that the Government of the President of the United States had confided to

you and willingly do I add that the favorable result of the negotiations must be attributed in very large part to your high personal qualities. While flattering myself with the hope that this first success will be a guaranty for the happy issue of the ulterior negotiations in Manila, I have the honor to renew the homage of the high consideration with which I am of Your Excellency the most devoted servant.

M. CARD. RAMPOLLA.

ROME, *July 18th, 1902.*



## APPENDIX P.

### PHILIPPINE IMPORTS DURING THREE CALENDAR YEARS OF AMERICAN OCCUPATION.

The following is a comparative statement of the commerce of the Philippine Islands during three calendar years of American occupation ended December 31, 1901, showing the imports from the United States and leading countries arranged under twelve distinct groups and a miscellaneous group; similar comparison of the principal articles of exportation is shown.

#### GROUP 1.—Animals and animal products.

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899- Dec. 31, 1901, inclusive.	Ratio per cent.
United States .....	\$5,408	\$19,041	\$74,451	\$98,900	7
Hongkong <sup>a</sup> .....		31,091	42,490	73,581	5
United Kingdom .....	16,906	20,525	31,406	68,837	5
Germany .....	22,536	74,254	57,192	158,982	11
France .....	7,253	27,721	33,127	68,101	5
Spain .....	158,264	106,953	187,305	452,522	31
China .....	21,706	8,270	55,080	85,056	6
Japan .....	1,156	5,671	8,142	14,969	1
British East Indies .....	60,697	97,164	166,510	324,371	23
All other countries .....	33,622	19,107	36,606	89,335	6
<b>Total</b> .....	<b>327,548</b>	<b>409,797</b>	<b>692,309</b>	<b>1,429,654</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

#### GROUP 2.—Foodstuffs.

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899- Dec. 31, 1901, inclusive.	Ratio per cent.
United States .....	\$232,080	\$267,762	\$638,367	\$1,138,209	5
Hongkong <sup>a</sup> .....		2,136,079	484,801	2,620,880	18
United Kingdom .....	99,490	124,731	200,148	424,369	2
Germany .....	14,176	71,738	76,586	162,500	1
France .....	20,737	42,259	32,592	95,588	1
Spain .....	320,190	179,629	236,451	736,270	4
China .....	4,458,819	2,648,692	2,228,205	9,735,716	47
Japan .....	7,564	11,371	29,589	48,524	1
British East Indies .....	375,431	355,221	955,986	1,686,641	8
All other countries .....	53,490	876,278	<sup>b</sup> 3,114,164	<sup>b</sup> 4,043,932	20
<b>Total</b> .....	<b>5,581,980</b>	<b>6,713,760</b>	<b>7,996,889</b>	<b>20,692,629</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$685,801 worth of rice from Siam and \$3,025,202 worth from French East Indies.

GROUP 3.—*Liquors and beverages.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....	\$394, 976	\$1, 067, 102	\$899, 655	\$2, 361, 733	55
Hongkong <sup>a</sup> .....		202, 474	36, 793	239, 267	6
United Kingdom.....	54, 827	69, 046	108, 538	232, 411	5
Germany.....	21, 915	47, 690	33, 501	103, 106	2
France.....	28, 495	84, 365	124, 577	237, 437	5
Spain.....	354, 111	161, 344	193, 680	709, 135	17
China.....	130, 415	2, 886	28, 975	162, 276	4
Japan.....	15, 675	5, 468	11, 379	32, 522	1
British East Indies.....	12, 607	44, 391	49, 225	106, 223	2
All other countries.....	14, 455	26, 477	73, 098	114, 030	3
Total.....	1, 027, 476	1, 711, 243	1, 559, 421	4, 298, 140	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

GROUP 4.—*Cotton, silk, and vegetable fibers.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....	\$27, 492	\$109, 074	\$152, 816	\$289, 382	1
Hongkong <sup>a</sup> .....		997, 823	20, 841	1, 018, 664	4
United Kingdom.....	2, 226, 215	4, 250, 653	3, 637, 345	10, 114, 213	43
Germany.....	317, 905	739, 141	883, 146	1, 940, 192	8
France.....	60, 995	218, 957	430, 327	710, 229	3
Spain.....	1, 304, 194	1, 281, 842	900, 640	3, 486, 676	15
China.....	742, 672	235, 459	696, 646	1, 674, 777	7
Japan.....	13, 678	136, 449	291, 160	441, 287	2
British East Indies.....	141, 751	757, 732	765, 683	1, 665, 166	7
All other countries.....	355, 323	1, 006, 060	1, 074, 878	<sup>b</sup> 2, 436, 261	10
Total.....	5, 190, 225	9, 733, 140	8, 833, 482	23, 776, 847	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$1,487,225 from Switzerland.

GROUP 5.—*Metals and manufactures.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....	\$57, 646	\$266, 080	\$741, 920	\$1, 065, 646	16
Hongkong <sup>a</sup> .....		159, 248	29, 086	188, 334	3
United Kingdom.....	303, 402	756, 183	868, 385	1, 927, 970	29
Germany.....	148, 102	327, 941	549, 942	1, 025, 985	16
France.....	65, 755	388, 360	951, 415	1, 405, 530	21
Spain.....	49, 864	31, 259	32, 038	113, 161	2
China.....	108, 672	17, 184	81, 643	207, 499	3
Japan.....	6, 468	7, 113	22, 190	35, 771	.....
British East Indies.....	15, 247	58, 632	293, 764	367, 643	6
All other countries.....	28, 686	96, 571	120, 194	245, 451	4
Total.....	783, 842	2, 108, 571	3, 690, 577	6, 582, 990	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

GROUP 6.—*Chemicals, drugs, dyes, paints, etc.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....	\$25,226	\$46,546	\$57,222	\$128,994	3
Hongkong <sup>a</sup> .....		454,482	46,323	500,805	13
United Kingdom.....	388,353	137,563	187,823	713,729	19
Germany.....	140,394	84,080	99,845	324,269	8
France.....	33,299	34,380	38,961	106,620	3
Spain.....	65,384	24,238	18,397	108,019	3
China.....	534,560	111,558	351,043	997,151	26
Japan.....	5,296	12,141	9,441	26,868	1
British East Indies.....	33,860	133,886	690,964	858,710	23
All other countries.....	8,088	14,407	16,000	38,495	1
<b>Total.....</b>	<b>1,234,440</b>	<b>1,053,201</b>	<b>1,516,019</b>	<b>3,803,660</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

GROUP 7.—*Clays, earths, and manufactures.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio, per cent.
United States.....	\$85	\$1,215	\$11,989	\$13,289	2
Hongkong <sup>a</sup> .....		86,017	20,020	56,087	10
United Kingdom.....	12,239	12,375	63,808	88,422	16
Germany.....	8,711	9,864	29,057	47,632	8
France.....	1,390	2,354	7,280	11,014	2
Spain.....	2,638	4,930	3,399	10,967	2
China.....	121,819	18,468	66,432	206,719	37
Japan.....	1,789	18,942	5,608	26,339	5
British East Indies.....	116	9,113	16,542	25,771	5
All other countries.....	36,779	13,057	21,599	71,435	13
<b>Total.....</b>	<b>185,556</b>	<b>126,335</b>	<b>245,734</b>	<b>557,625</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately. Although the country of origin in the case of importations is not definitely known, it is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$31,402 from Belgium and \$27,339 from Netherlands.

GROUP 8.—*Marble and stone.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio, per cent.
United States.....		\$332	\$3,058	\$3,390	5
Hongkong <sup>a</sup> .....		2,342	320	2,662	4
United Kingdom.....		1,619	1,341	3,571	5
Germany.....	5,185	1,014	2,100	8,299	12
France.....	829	169	964	1,962	3
Spain.....	714	230	2,602	3,546	5
China.....	9,537	2,318	4,682	16,537	25
Japan.....		277	41	318	1
British East Indies.....	2,855	332	89	3,276	5
All other countries.....	11,459	9,946	2,244	23,649	35
<b>Total.....</b>	<b>31,190</b>	<b>18,579</b>	<b>17,441</b>	<b>67,210</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately. Although the country of origin in the case of importations is not definitely known, it is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$7,680 from Switzerland and \$11,000 from Netherlands.

GROUP 9.—*Glass and glassware.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio, per cent.
United States.....	\$294,264	\$201,349	\$303,413	\$799,026	50
Hongkong <sup>a</sup> .....		48,592	5,708	54,300	3
United Kingdom.....	10,385	24,197	52,997	87,579	5
Germany.....	58,580	54,190	124,088	236,858	15
France.....	7,022	8,371	22,113	37,506	2
Spain.....	31,439	18,977	40,702	91,118	6
China.....	122,856	2,172	13,899	138,927	9
Japan.....	22,942	4,020	14,374	41,336	3
British East Indies.....	1,582	10,486	11,222	23,290	1
All other countries.....	30,150	27,419	36,185	93,754	6
Total.....	579,220	399,773	624,701	1,603,694	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

GROUP 10.—*Paper and manufactures.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio, per cent.
United States.....	\$215,631	\$62,764	\$299,541	\$577,936	28
Hongkong <sup>a</sup> .....		24,407	1,951	26,358	1
United Kingdom.....	37,955	16,049	23,385	77,389	4
Germany.....	105,155	84,168	103,911	293,234	14
France.....	38,542	73,421	76,614	188,577	9
Spain.....	278,603	103,855	143,212	525,670	26
China.....	87,623	19,408	42,138	149,169	7
Japan.....	3,752	4,773	9,788	18,313	1
British East Indies.....	804	3,156	5,985	9,945	.....
All other countries.....	64,691	71,104	73,068	<sup>b</sup> 208,863	10
Total.....	822,756	463,105	778,593	2,064,454	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$160,887 from Austria-Hungary and \$37,131 from Belgium.

GROUP 11.—*Wood and manufactures.*

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio, per cent.
United States.....	\$4,617	\$10,692	\$81,716	\$97,025	10
Hongkong <sup>a</sup> .....		36,030	14,932	50,962	5
United Kingdom.....	4,182	8,557	14,905	27,644	3
Germany.....	11,629	56,171	86,237	154,037	16
France.....	3,601	11,042	23,556	38,199	4
Spain.....	20,522	16,198	14,614	51,334	5
China.....	65,663	8,604	41,643	115,910	12
Japan.....	1,841	4,180	26,973	32,994	4
British East Indies.....	48,014	43,563	123,917	215,494	23
All other countries.....	34,532	28,462	104,079	<sup>b</sup> 167,073	18
Total.....	194,601	223,504	532,572	950,677	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$34,104 from Australasia, \$36,131 from Dutch East Indies, and \$22,721 from Canada.

GROUP 12.—*Oil.*<sup>a</sup>

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899, Dec. 31, 1901, inclusive.	Ratio, per cent.
United States.....	\$37,710	\$12,003	\$124,342	\$174,055	14
Hongkong <sup>b</sup> .....		71,609	10,589	82,198	7
United Kingdom.....	16,150	58,528	10,587	85,265	7
Germany.....	654	4,337	10,459	15,450	1
France.....	144	260	1,860	2,264	.....
Spain.....	7,811	2,005	40,662	50,478	4
China.....	36,914	5,830	61,237	103,981	9
Japan.....	310		10	320	.....
British East Indies.....	14,671	16,066	14,423	45,160	4
All other countries.....	116,573	258,573	285,146	660,292	54
<b>Total.....</b>	<b>230,937</b>	<b>429,211</b>	<b>559,315</b>	<b>1,219,463</b>	<b>100</b>

<sup>a</sup> Exclusive of olive oil and linseed oil, which are grouped with foodstuffs and with chemicals, drugs and dyes, respectively.

<sup>b</sup> Hongkong trade included under China prior to January 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>c</sup> Including \$653,947 from Russia.

MISCELLANEOUS.

Imported from—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899, to Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....	\$57,951	\$89,238	\$145,765	\$292,954	4
Hongkong <sup>c</sup> .....		410,719	451,884	862,603	11
United Kingdom.....	73,394	96,915	491,911	662,220	9
Germany.....	67,902	77,278	149,631	294,811	4
France.....	29,371	86,506	164,688	280,565	4
Spain.....	113,424	57,775	120,549	291,748	4
China.....	1,892,197	46,720	213,343	2,152,260	28
Japan.....	103,937	230,914	632,436	967,287	13
British East Indies.....	76,725	215,377	289,755	581,857	8
All other countries.....	588,314	102,118	435,456	1,125,888	15
<b>Total.....</b>	<b>3,003,215</b>	<b>1,473,560</b>	<b>3,095,418</b>	<b>7,572,193</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to January 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> Including \$911,531 worth of coal and coke from Australasia.

RECAPITULATION.

Articles imported.	Jan. 1, 1899, to Dec. 31, 1901.				
	United States.	Hongkong. <sup>a</sup>	United Kingdom.	Germany.	France.
Animals and animal products.....	\$98,900	\$73,581	\$68,837	\$153,982	\$68,101
Food stuffs.....	1,138,209	2,620,880	424,369	162,500	95,588
Liquors and beverages.....	2,361,733	239,267	232,411	103,106	237,437
Cotton, silk, and vegetable fibers.....	289,382	1,018,664	10,114,213	1,940,192	710,229
Metals and manufactures.....	1,065,646	188,334	1,927,970	1,025,985	1,405,530
Chemicals, drugs, dyes, etc.....	128,994	500,805	713,729	324,269	106,620
Clays, earths, and manufactures.....	13,289	56,037	88,422	47,632	11,014
Marble and stone.....	3,390	2,662	3,571	8,299	1,962
Glass and glassware.....	799,026	54,300	87,579	236,858	37,506
Paper and manufactures.....	577,936	26,358	77,389	293,234	182,577
Wood and manufactures.....	97,025	50,962	27,614	154,037	38,119
Oils.....	174,055	82,198	85,265	15,450	2,264
Miscellaneous.....	292,954	862,603	662,220	291,811	290,565
<b>Total.....</b>	<b>7,040,539</b>	<b>5,776,651</b>	<b>14,513,619</b>	<b>4,760,356</b>	<b>3,177,512</b>

<sup>a</sup> Hongkong trade included under China prior to January 1, 1900; subsequent to that date it is shown separately, although the country of origin in the case of importations is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.



## GROUP 12.—Oils—Continued.

## RECAPITULATION—Continued.

Articles imported.	Jan. 1, 1899, to Dec. 31, 1901.					
	Spain.	China.	Japan.	British East Indies.	Other countries.	Total.
Animals and animal products.....	\$452,522	\$85,056	\$14,969	\$324,371	\$89,335	\$1,429,654
Foodstuffs.....	736,270	9,735,716	48,524	1,686,641	4,043,932	20,692,629
Liquors and beverages.....	709,135	162,276	32,522	106,223	114,030	4,298,140
Cotton, silk, and vegetable fibers.....	3,486,676	1,674,777	441,287	1,665,166	2,436,261	23,776,847
Metals and manufactures.....	113,161	207,499	35,771	367,643	245,451	6,582,990
Chemicals, drugs, dyes, etc.....	108,019	997,151	26,868	858,710	38,495	3,803,660
Clays, earths, and manufactures.....	10,967	206,719	26,339	25,771	71,435	557,625
Marble and stone.....	3,546	16,537	318	3,276	23,649	67,210
Glass and glassware.....	91,118	138,927	41,336	23,290	93,754	1,603,694
Paper and manufactures.....	520,670	149,169	18,313	9,945	208,863	2,064,454
Wood and manufactures.....	51,334	115,910	32,994	215,499	167,073	1,950,597
Oils.....	50,478	103,981	320	45,160	660,292	1,219,463
Miscellaneous.....	291,748	2,152,260	967,287	581,857	1,185,888	7,572,193
Total.....	6,625,614	15,745,978	1,686,848	5,913,552	9,378,458	74,619,156

<sup>a</sup>The importation of gold and silver amounted to \$11,174,200 and is not included in these figures.

**PHILIPPINE EXPORTS DURING THREE CALENDAR YEARS OF AMERICAN OCCUPATION.**

## HEMP.

Exported to—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....	\$3,015,726	\$2,796,668	\$4,157,313	\$9,969,707	27
Hongkong <sup>a</sup> .....		1,882,593	832,577	2,715,170	7
United Kingdom.....	2,574,760	7,102,711	10,359,983	20,037,454	54
Germany.....			25,121	25,121	.....
France.....	3,600	14,500	18,400	36,500	1
Spain.....	53,460	116,254	17,040	186,754	.....
China.....	1,972,175	106,991	8,228	2,087,394	6
Japan.....	22,095	215,932	217,722	455,749	1
British East Indies.....	127,310	229,613	126,864	483,787	1
All other countries.....	224,448	825,138	213,392	1,262,978	3
Total.....	7,993,574	13,290,400	15,976,640	37,260,614	100

## SUGAR.

United States.....	\$889,455	\$98,525	\$298,354	\$1,276,334	15
Hongkong <sup>a</sup> .....		1,311,309	1,007,971	2,319,280	23
United Kingdom.....	506,107	237,125		742,232	9
Germany.....					.....
France.....			12	12	.....
Spain.....	302		51	353	.....
China.....	1,066,896	76,013	187	1,163,096	14
Japan.....	978,958	551,376	1,254,967	2,785,301	33
British East Indies.....	25	15		40	.....
All other countries.....		127,850	7	127,857	1
Total.....	3,460,743	2,397,213	2,556,549	8,414,505	100

## TOBACCO.

United States.....	\$3,405	\$5,669	\$984	\$10,058	.....
Hongkong <sup>a</sup> .....		393,574	399,025	792,599	12
United Kingdom.....	307,134	237,725	607,169	1,162,018	17
Germany.....	3,806	55,324	39,169	98,299	1
France.....	21,435	62,748	28,043	102,226	.....
Spain.....	602,039	646,649	680,600	1,929,288	23
China.....	700,217	36,177	99,335	835,729	12
Japan.....	8,190	14,993	25,941	49,124	1
British East Indies.....	175,534	180,672	180,541	536,747	8
All other countries.....	109,493	637,701	571,144	1,318,338	19
Total.....	1,931,253	2,261,232	2,631,941	6,824,426	100

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900. Subsequent to that date it is shown separately. Although the country of ultimate destination of articles exported is not definitely known, it is fair to presume, however, that a large portion of this trade should be credited to the United States.

*Philippine exports during three calendar years of American occupation—Continued.*

COPRA.

Exported to—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899- Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....		\$4,450		\$4,450	
Hongkong <sup>a</sup> .....		5,574	\$637	6,111	
United Kingdom.....	\$30,976	103,950	36,898	171,814	3
Germany.....		490	4,892	5,382	
France.....	494,111	2,364,736	1,118,576	3,977,423	72
Spain.....	156,115	471,494	340,452	965,061	18
China.....	2,818	13,263	184	16,265	
Japan.....	1,514	50	45,000	46,564	1
British East Indies.....		92,023	54,344	145,357	3
All other countries.....	41,119	127,461	10,975	179,555	3
<b>Total</b> .....	<b>726,653</b>	<b>3,182,481</b>	<b>1,611,838</b>	<b>5,520,972</b>	<b>100</b>

HIDES AND SKINS.

	\$900			\$900	
United States.....					
Hongkong <sup>a</sup> .....		\$44,625	\$76,945	121,570	23
United Kingdom.....		595	4,139	4,734	1
Germany.....	307			307	
France.....					
Spain.....					
China.....	22,542	690		23,232	5
Japan.....		30		30	
British East Indies.....	26,208	265,243	78,623	370,074	71
All other countries.....					
<b>Total</b> .....	<b>50,047</b>	<b>311,183</b>	<b>159,707</b>	<b>520,937</b>	<b>100</b>

METALS AND MANUFACTURES.

	\$20,935	\$620	\$670	\$22,225	
United States.....					10
Hongkong <sup>a</sup> .....		17,128	56,359	73,487	33
United Kingdom.....	7,500	5,940	5,560	19,000	8
Germany.....					
France.....	5,750		250	6,000	3
Spain.....	47,367			47,367	21
China.....	37,328	7	219	37,554	16
Japan.....	10,224			10,224	4
British East Indies.....	3,000	1,797	1,511	6,308	3
All other countries.....	650	540	3,713	4,903	2
<b>Total</b> .....	<b>132,754</b>	<b>26,082</b>	<b>68,282</b>	<b>227,068</b>	<b>100</b>

SHELLS.<sup>b</sup>

		\$2,715	\$2,599	\$5,311	
United States.....					2
Hongkong <sup>a</sup> .....		10,307	13,264	23,571	11
United Kingdom.....		4,872	9,053	13,925	6
Germany.....		2,289	5,090	7,329	3
France.....		1,500	4,625	6,125	3
Spain.....			372	372	
China.....					
Japan.....			20	20	
British East Indies.....		46,909	117,959	164,868	74
All other countries.....		1,320	537	1,857	1
<b>Total</b> .....		<b>69,862</b>	<b>153,519</b>	<b>223,391</b>	<b>100</b>

GUMS AND RESINS.<sup>b</sup>

			\$1,170	\$1,170	
United States.....					1
Hongkong <sup>a</sup> .....		\$5,090	10,625	15,715	8
United Kingdom.....		18,071	31,227	49,298	25
Germany.....		1,968	2,585	4,553	2
France.....		1,900	1,758	3,658	2
Spain.....					
China.....					
Japan.....			150	150	
British East Indies.....		16,879	105,441	122,320	61
All other countries.....			1,845	1,845	1
<b>Total</b> .....		<b>43,908</b>	<b>154,801</b>	<b>198,709</b>	<b>100</b>

<sup>a</sup> Hongkong trade included under China prior to Jan. 1, 1900. Subsequent to that date it is shown separately. Although the country of ultimate destination of articles exported is not definitely known, it is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>b</sup> In 1899 these articles were included under "Miscellaneous" in the schedule of classification.

## Philippine exports during three calendar years of American occupation—Continued.

STRAW MANUFACTURES, HATS, ETC.<sup>a</sup>

Exported to—	1899.	1900.	1901.	Total 3 years, Jan. 1, 1899— Dec. 31, 1901, inclusive.	Ratio per cent.
United States.....		\$1,100	\$62,353	\$63,453	34
Hongkong <sup>b</sup> .....		2,605	9,482	12,087	6
United Kingdom.....		1,925	8,763	10,688	6
Germany.....			414	414	
France.....		27,107	62,383	89,490	48
China.....			770	770	
British East Indies.....		7,870	2,752	10,622	6
All other countries.....		10		10	
Total.....		40,617	146,917	187,534	100

## OILS.

United States.....			\$3,638	\$3,638	3
Hongkong <sup>b</sup> .....		\$6,982	6,810	13,792	13
United Kingdom.....			225	225	
Germany.....		250	2,943	3,193	3
France.....		15,930	61,323	77,253	73
Spain.....			1,213	1,213	1
China.....	\$1,923			4,923	5
Japan.....			800	800	1
British East Indies.....		114	1,150	1,264	1
Total.....	4,923	23,276	78,102	106,301	100

## MISCELLANEOUS.

United States.....	\$4,744	\$56,104	\$24,211	\$85,059	3
Hongkong <sup>b</sup> .....		191,207	511,379	702,586	24
United Kingdom.....	106,518	392,306	63,229	562,053	20
Germany.....	20,247	66,468	1,228	87,943	3
France.....	50,033	55,186	28,143	133,362	5
Spain.....	117,823	332,575	223,422	673,820	24
China.....	186,607	5,696	9,080	201,373	7
Japan.....	1,039	12,072	39,618	52,729	2
British East Indies.....	36,268	169,253	58,978	264,499	9
All other countries.....	23,356	63,312	5,769	92,437	3
Total.....	546,635	1,344,169	965,057	2,855,861	100

## RECAPITULATION.

Articles exported.	January 1, 1899, to December 31, 1901.				
	United States.	Hongkong. <sup>b</sup>	United Kingdom.	Germany.	France.
Hemp.....	\$9,969,707	\$2,715,170	\$20,037,454	\$25,121	\$36,500
Sugar.....	1,276,334	2,319,280	742,232		12
Tobacco and manufactures.....	10,058	792,599	1,152,018	98,299	102,226
Copra.....	4,450	6,111	171,814	5,362	3,977,423
All other articles.....	181,849	962,808	659,923	103,739	315,888
Total.....	11,442,398	6,795,968	22,763,441	232,521	4,432,049

Articles exported.	January 1, 1899, to December 31, 1901.					Total.
	Spain.	China.	Japan.	British East Indies.	All other countries.	
Hemp.....	\$186,754	\$2,087,394	\$455,749	\$483,787	\$1,262,978	\$37,260,614
Sugar.....	353	1,163,096	2,785,301	40	127,857	8,414,506
Tobacco and manufactures.....	1,929,288	835,729	49,124	536,747	1,318,338	6,824,426
Copra.....	968,061	16,265	46,564	145,367	179,555	5,520,972
All other articles.....	722,772	267,852	63,953	939,955	101,052	4,319,791
Total.....	3,807,228	4,370,336	3,400,691	2,105,896	2,989,780	62,340,308

<sup>a</sup> In 1899 these articles were included under "Miscellaneous" in the schedule of classification.

<sup>b</sup> Hongkong trade included under China prior to January 1, 1900; subsequent to that date it is shown separately, although the country of ultimate destination of articles exported is not definitely known. It is fair to presume, however, that a large portion of this trade should be credited to the United States.

<sup>c</sup> The exportation of gold and silver amounted to \$9,663,302 and is not included in these figures.

## APPENDIX Q.

*Revenues and expenditures in the Philippine Archipelago from date of American occupation,  
August 20, 1898, to June 30, 1902.*

	Fiscal year ended June 30—				Total.
	1899.	1900.	1901.	1902.	
<b>REVENUES.</b>					
Customs .....	\$3,097,864.15	\$5,739,297.40	\$9,105,754.67	\$8,550,758.49	\$26,493,674.71
Postal .....	42,954.87	104,292.54	122,816.83	137,811.99	407,866.23
Internal .....	240,754.00	561,933.18	966,400.47	225,505.09	1,994,652.74
Provincial .....				1,993,270.97	1,993,270.97
City of Manila .....				1,199,590.01	1,199,590.01
Miscellaneous .....	127,109.81	357,954.61	491,217.00	524,482.97	1,500,764.39
<b>Total .....</b>	<b>3,508,682.83</b>	<b>6,763,527.73</b>	<b>10,686,188.97</b>	<b>12,631,419.52</b>	<b>33,589,819.05</b>
<b>EXPENDITURES.</b>					
Customs .....	28,817.90	100,194.09	267,446.88	490,126.40	886,585.27
Postal .....	30,410.75	89,149.51	155,347.77	175,156.57	450,064.60
Provincial .....				746,586.80	746,586.80
Refunds to provinces .....				324,479.35	324,479.35
City of Manila .....				1,744,344.56	1,744,344.56
Other expenditures .....	2,316,779.97	4,569,334.15	5,650,971.79	6,564,426.64	19,101,512.55
<b>Total .....</b>	<b>2,376,008.62</b>	<b>4,758,677.75</b>	<b>6,073,766.44</b>	<b>10,045,120.32</b>	<b>23,253,573.13</b>

These figures represent the revenues and expenditures expressed in United States currency values, transactions in Mexican currency being reduced to American currency values at the uniform rate of exchange of \$2 Mexican for \$1 United States currency up to and including December 31, 1901; and at the current rate of exchange which prevailed from January 1 to June 30, 1902, which was for the first three months \$2.10 Mexican to \$1 American currency, and \$2.27 Mexican to \$1 American currency in the last three months.

In addition to the expenditures shown in the foregoing statement there has been expended by the insular purchasing agent for supplies the sum of \$1,058,037.30 under reimbursable appropriations, and there has actually been reimbursed to this fund from sales the sum of \$835,868.40, the difference representing the stock now in the hands of the purchasing agent. Also under reimbursable appropriations there has been spent for commissary supplies for the insular constabulary the sum of \$165,726.97, to which fund there has been reimbursed from sales the sum of \$75,072.72, the difference in this case also representing stock

on hand. There was a net shrinkage in gold values on funds in the hands of the treasurer of the sum of \$592,691.38 by the changes in the ratio between insular and United States currency.

The city of Manila was incorporated by an act of the Philippine Commission approved on July 31, 1901. The provincial revenues to June 30, 1901, are included in internal revenues.

The accounts are audited for the period from the date of American occupation to June 30, 1901, and estimated by the auditor for the last fiscal year. In submitting the report the auditor states that the figures are "subject to change by audit nearing completion." As far as possible, these figures have been verified by other reports received in the Bureau of Insular Affairs, with the result that it is believed no material changes will be made. The total revenues for the current year have increased over those for any previous year, but there is shown a decrease in receipts from customs. On March 17, 1902, quarantine was declared against vessels coming from Hongkong, and the importation of green fruits and vegetables therefrom. The prevalence of cholera in China, and subsequently in the Philippine Archipelago, affected the commerce generally.

## APPENDIX R.

### CUBAN IMPORTS DURING AMERICAN OCCUPATION.

The following is a comparative statement of the commerce of Cuba during the period of American occupation, showing, by groups, the imports from the United States, as against all other countries, and a similar comparison of the principal articles of exportation:

#### GROUP 1.—Animals and animal products.

Imported from—	Live stock.				Hides and skins.
	Bovine cattle.	Horses, mules, and donkeys.	Hogs.	All other.	
United States.....	\$6,324,916	\$1,363,789	\$650,954	\$353,759	\$170,283
All other countries.....	22,578,015	803,502	23,793	18,783	188,181
<b>Total</b> .....	<b>28,902,931</b>	<b>2,167,291</b>	<b>674,747</b>	<b>372,542</b>	<b>358,464</b>

Imported from—	Leather.	Boots and shoes.	Harness and saddlery.	All other leather manufactures.	All other animal products.
All other countries.....	162,764	5,069,194	13,517	265,118	95,320
<b>Total</b> .....	<b>243,851</b>	<b>6,812,017</b>	<b>62,800</b>	<b>476,857</b>	<b>293,213</b>

#### GROUP 2.—Foodstuffs.

Imported from—	Cereals and products.				
	Wheat flour.	Corn.	Oats.	Barley.	Bran and mill feed.
United States.....	\$7,612,955	\$2,467,205	\$446,317	\$12,932	\$119,563
All other countries.....	19,075	15,016	16,680	75,977	.....
<b>Total</b> .....	<b>7,632,030</b>	<b>2,482,221</b>	<b>463,027</b>	<b>88,909</b>	<b>119,563</b>

Imported from—	Cereals and products.				
	Macaroni and vermicelli.	Bread and biscuit.	Table food preparations.	Rice.	All other.
United States.....	\$18,567	\$59,479	\$113,489	\$111,790	\$71,890
All other countries.....	13,792	51,273	122,681	11,623,030	63,572
<b>Total</b> .....	<b>32,359</b>	<b>110,752</b>	<b>236,173</b>	<b>11,734,820</b>	<b>135,462</b>

GROUP 2.—*Foodstuffs*—Continued.

Imported from—	Meat and meat products.				
	Fresh meat.	Bacon, hams, and shoulders.	Canned meats.	Jerked meat.	Salted and pickled.
United States.....	\$552,460	\$1,220,812	\$12,426	\$7,515	\$3,975,332
All other countries.....	218	85,901	966	5,014,581	392,400
Total.....	552,678	1,306,713	13,382	5,022,096	4,367,732

Imported from—	Meat and meat products.			
	Mutton.	Poultry and game.	Lard, tallow, etc.	All other.
United States.....	\$34,349	\$232,983	\$9,350,756	\$2,493,950
All other countries.....		3,416	55,277	2,288,674
Total.....	34,349	236,399	9,406,033	4,782,624

Imported from—	Fish.					Butter and oleo-margarine.
	Dried cod, hake, etc.	All other dried.	Canned.	Shell-fish.	All other products.	
United States.....	\$435,757	\$54,527	\$9,453	\$13,357	\$412,231	\$428,479
All other countries.....	1,285,735	26,317	304,784	3,826	386,091	359,889
Total.....	1,721,492	80,844	314,237	22,183	798,322	788,368

Imported from—	Cheese.	Con- densed milk.	Fruits.			All other, green or dried.
			Apples.	Raisins.	Canned and pre- served.	
United States.....	\$304,297	\$791,486	\$52,625	\$5,596	\$84,731	\$249,041
All other countries.....	1,321,489	145,956	8,001	108,196	209,635	527,777
Total.....	1,625,786	937,442	60,626	113,791	294,366	776,818

Imported from—	Vegetables.					
	Beans and peas.	Onions.	Potatoes.	Dried pulse.	Canned.	All other, including pickles and sauce.
United States.....	\$833,962	\$41,690	\$1,507,769	\$31,971	\$85,242	\$307,575
All other countries.....	663,299	489,297	873,464	582,149	277,400	1,343,312
Total.....	1,497,261	530,987	2,381,233	614,120	312,642	2,150,887

Imported from—	Sugar.	Molasses and sirup.	Candy and confection- ery.	Cocoa.	Coffee.
All other countries.....	2,578	9	295,801	31,673	2,191,804
Total.....	80,549	641	419,348	127,318	5,461,285

Imported from—	Eggs.	Nuts.	Olive oil.	Spices.	Tea.	All other.
All other countries.....	24,201	60,447	2,851,038	346,341	13,580	96
Total.....	2,004,137	64,643	2,885,400	396,116	14,885	101

<sup>a</sup>Of this \$1,984,112 worth is from Porto Rico.

GROUP 3.—Liquors and beverages.

Imported from—	Cider.	Malt liquors.	Brandy.	Whisky.	Wines and cordials.	All other distilled.	Mineral waters, etc.
United States.....	\$1,150	\$1,668,242	\$104,419	\$12,661	\$63,843	\$4,145	\$47,636
All other countries.....	138,128	847,550	285,808	6,424	6,719,498	286,794	247,690
<b>Total.....</b>	<b>139,278</b>	<b>2,515,801</b>	<b>390,227</b>	<b>19,085</b>	<b>6,783,341</b>	<b>290,939</b>	<b>295,326</b>

GROUP 4.—Cotton, silk, vegetable fibers, wool, etc.

Imported from—	Cotton.						
	Raw.	Cloths. Closely woven.	Cloths. Loosely woven.	Velvet- eens, cordu- roys, etc.	Tulles and laces.	Knit fabrics.	Wear- ing appar- el.
United States.....	\$10,073	\$185,277	\$442,281	\$6,045	\$3,164	\$28,385	\$68,273
All other countries.....	41,247	1,737,475	4,815,573	108,057	611,709	1,172,878	213,685
<b>Total.....</b>	<b>51,320</b>	<b>1,922,752</b>	<b>5,257,854</b>	<b>114,102</b>	<b>614,873</b>	<b>1,201,263</b>	<b>281,958</b>

Imported from—	Cotton.		Silk.			
	Yarn and thread.	All other.	Raw.	Yarn and thread.	Tulles and laces.	All other man- ufactures.
United States.....	\$93,559	\$1,583,913	\$1,663	\$10,028	\$236	\$105,232
All other countries.....	860,293	8,415,919	2,543	6,907	49,533	1,483,615
<b>Total.....</b>	<b>953,852</b>	<b>9,999,832</b>	<b>4,206</b>	<b>16,935</b>	<b>49,769</b>	<b>1,588,847</b>

Imported from—	Vegetable fibers.						
	Raw flax and hemp.	Esparto, cane, oziars, straw palm, etc.	Cloths and dam- asks.	Yarn, twine, cordage, and rope.	Sugar bags.	Wear- ing appar- el.	All other.
United States.....	\$214,922	\$49,122	\$4,192	\$120,674	\$182,081	\$5,381	\$131,564
All other countries.....	381,461	41,960	964,425	301,597	1,594,168	27,779	4,606,664
<b>Total.....</b>	<b>596,383</b>	<b>91,082</b>	<b>968,617</b>	<b>422,271</b>	<b>1,776,249</b>	<b>33,160</b>	<b>4,738,228</b>

Imported from—	Wool.						
	Raw.	Cloths spun or twilled.	Flan- nels and blank- ets.	Wear- ing appar- el.	Carpets.	All other.	Hats and caps.
United States.....	\$1,488	\$11,420	\$5,735	\$25,785	\$5,826	\$81,910	\$79,983
All other countries.....	2,177	299,097	45,875	103,868	31,256	1,768,272	590,533
<b>Total.....</b>	<b>3,665</b>	<b>310,517</b>	<b>51,610</b>	<b>129,653</b>	<b>37,082</b>	<b>1,850,182</b>	<b>670,516</b>

GROUP 5.—Metals and metal manufactures.

Imported from—	Alumi- num and manufac- tures.	Brass and manufac- tures.	Copper.		Gold and silver and man- ufactures.		
			Ingots, bars, and sheets.	Manu- factures.	Jewelry.	Lamps, chan- deliers, etc.	All other manufac- tures.
United States.....	\$8,381	\$44,826	\$66,110	\$575,630	\$6,792	\$694	\$40,133
All other countries.....	1,788	69,698	138,574	229,158	200,804	289	292,972
<b>Total.....</b>	<b>10,169</b>	<b>114,524</b>	<b>204,684</b>	<b>804,788</b>	<b>207,596</b>	<b>983</b>	<b>333,106</b>



## GROUP 5.—Metals and metal manufactures—Continued.

Imported from—	Iron and steel.						
	Pig iron.	Bars, rods, sheets, plates.	Hoops, bands, and scroll.	Rails.	Cutlery.	Fire-arms.	Nails, spikes, and tacks.
United States.....	\$14,259	\$1,668,257	\$75,385	\$1,223,804	\$108,595	\$34,012	\$280,272
All other countries.....	5,416	630,321	112,340	695,158	184,116	50,188	140,212
Total.....	19,675	2,298,578	187,725	1,918,962	292,711	84,200	420,484

Imported from—	Iron and steel.						
	Wire and cables.	Pipes and fittings.	Safes.	Scales and balances.	Needles, pins, pens, surgical instruments, etc.	Machinery.	
						Electrical.	Metal working.
United States.....	\$395,568	\$198,476	\$21,828	\$96,638	\$100,421	\$221,064	\$164,042
All other countries.....	33,654	48,019	1,693	8,034	286,888	19,583	22,300
Total.....	429,222	246,495	23,521	104,672	387,309	240,647	186,342

Imported from—	Iron and steel.						
	Machinery.						Cars, carriages, and vehicles.
	Pumps and pump machinery.	Sewing.	Locomotives, engines, and boilers.	Sugar and brandy.	Type-writers.	All other and parts of.	For steam railways.
United States.....	\$117,629	\$288,716	\$918,569	\$1,924,063	\$73,721	\$2,020,580	\$220,262
All other countries.....	26,630	16,561	17,704	354,143	813	369,039	.....
Total.....	144,259	305,277	936,273	2,278,206	74,534	2,389,619	220,262

Imported from—	Iron and steel.						
	Cars, carriages, and vehicles.			Tools and implements.			All other and manufactures of.
	For other rail-ways.	Cycles.	All other.	Agricultural.	Builders' hardware.	All other.	
United States.....	\$107,157	\$28,353	\$254,110	\$738,112	\$85,996	\$358,014	\$1,367,227
All other countries.....	415	1,601	32,742	299,602	70,673	179,214	472,555
Total.....	107,572	29,954	286,852	1,037,714	156,669	537,228	1,839,782

Imported from—	Iron and steel.						
	Lead and manu-factures.	Tin and manu-factures.	Zinc and manu-factures.	Clocks and parts.	Watches and parts.	Plated ware.	All other metal compositions and manu-factures.
United States.....	\$56,292	\$219,596	\$22,109	\$54,517	\$40,975	\$107,057	\$423,260
All other countries.....	47,298	213,878	54,393	21,290	190,142	89,191	359,099
Total.....	103,590	433,474	76,502	75,807	231,117	196,248	788,359

GROUP 6.—*Chemicals, drugs, dyes, paints, etc.*

Imported from—	Acids.	Blacking.	Gums and resins.	Inks.	Linseed oil.	Medicines, patent and proprietary.
United States .....	\$84,612	\$36,216	\$137,454	\$16,429	\$12,352	\$230,028
All other countries .....	40,657	11,940	3,637	20,733	97,218	298,222
<b>Total</b> .....	125,269	48,156	141,091	37,162	109,570	528,250

Imported from—	Opium.	Paints and colors.	Roots, herbs, and barks.	Quinine and cinchona.	Varnish.	All other.
United States .....	\$26,747	\$335,080	\$13,283	\$19,501	\$108,689	\$1,260,906
All other countries .....	144,365	461,685	80,051	55,582	18,600	1,190,383
<b>Total</b> .....	171,112	796,765	93,334	75,083	127,289	2,751,289

GROUP 7.—*Clay, earth, and manufactures.*

Imported from—	Cement.	Brick.	Earthen, stone, and china ware.	Crockery.	All other.
United States.....	\$22,592	\$256,682	\$81,114	\$70,617	\$18,343
All other countries.....	84,512	35,315	547,192	104,086	98,457
<b>Total</b> .....	377,104	291,997	628,306	174,703	116,800

GROUP 8.—*Marble and stone.*

Imported from—	Marble.	All other stone.	Lime.
United States.....	\$3,305	\$168,681	\$6,856
All other countries.....	30,072	242,118	2,708
<b>Total</b> .....	33,377	410,799	9,564

GROUP 9.—*Glass and glassware.*

Imported from—	Window glass.	Incandescent electric lamps.	Glass coverings paying duty separate from contents.	All other.
United States.....	\$3,618	\$16,335	\$106,115	\$550,241
All other countries.....	46,980	4,884	188,579	922,725
<b>Total</b> .....	50,598	21,219	294,694	1,472,966

GROUP 10.—*Paper and manufactures.*

Imported from—	Pulp.	For printing purposes.	Writing paper and envelopes.	Blank books and headed papers.	Wrapping paper, bags, and boxes.	Straw paper and straw board.	Books, maps, scientific instruments, etc.	All other.
United States.....	\$276,084	\$16,893	\$41,140	\$32,101	\$48,581	\$24,470	\$239,989	\$397,133
All other countries.....	915,138	29,946	75,397	40,646	38,619	175,025	563,088	798,247
<b>Total</b> .....	1,191,222	46,839	116,537	72,747	87,200	199,495	803,077	1,195,380

## REPORT OF THE SECRETARY OF WAR.

## GROUP 11.—Wood and manufactures.

Imported from—	Logs and hewn timber.	Pine wood, unplanned.	Boards, deals, and planks.	Shooks.	All other unmanufactured.
United States.....	\$16,257,423	\$2,372,066,101,447	\$71,173,55	\$158,316,4,338	\$718,839,39,037
All other countries.....					
Total.....	16,680	2,473,583	71,228	162,654	757,876

Imported from—	Furniture and cabinet ware.	Empty barrels and hogsheads.	Wood cases containing imported goods.	Woodenware.	All other manufactured.
United States.....	\$588,495	\$414,600	\$148,979	\$135,176	\$740,535
All other countries.....	158,802	508,802	201,916	34,867	118,637
Total.....	747,297	923,402	350,895	170,043	859,168

## GROUP 12.—Oils.

Imported from—	Animal.	Mineral.				Vegetable oils. <sup>a</sup>
		Crude petroleum.	Illuminating.	Lubricating.	All other.	
United States.....	\$176,953	\$1,112,901	\$277,514	\$144,961	\$282,980	\$122,875
All other countries.....	29,629	251	1,800	1,800	10,311	163,621
Total.....	206,582	1,113,152	277,516	146,761	293,241	286,496

<sup>a</sup> Except olive and linseed.

## MISCELLANEOUS.

Imported from—	Brooms and brushes.	Candles.	Celluloid and manufactures.	Coal.		Coke.
				Anthracite.	Bituminous.	
United States.....	\$37,763	\$15,937	\$8,843	\$246,179	\$2,063,025	\$110,419
All other countries.....	55,382	500,463	54,275	3,435	16,392	23,787
Total.....	93,145	516,400	63,118	249,614	2,079,417	134,206

Imported from—	Cork and manufactures.	Natural fertilizers.	Fans.	Gunpowder and explosives.	Games and toys.	Hay and fodder.
United States.....	\$24,706	\$19,415	\$11,417	\$209,233	\$33,387	\$298,140
All other countries.....	108,067	487,288	78,293	19,988	150,466	28,965
Total.....	132,763	506,703	89,710	229,221	183,853	327,105

Imported from—	Scientific and electrical instruments and apparatus.	Matches.	Musical instruments.		Oilcloths.	Perfumery and cosmetics.
			Pianos and organs.	All other.		
United States.....	\$87,691	\$15,630	\$32,286	\$13,001	\$62,985	\$29,182
All other countries.....	13,559	59,437	73,892	70,406	10,869	321,440
Total.....	101,250	55,067	106,178	83,407	73,854	350,622

GROUP 12.—Oils—Continued.

MISCELLANEOUS—Continued.

Imported from—	Rubber and manufactures.	Soap.			Starch.	Tobacco.	
		Seeds.	Com-mon.	All other.		Cigars and cig-arettes.	Plug and cakes.
United States.....	\$147,887	\$32,457	\$45,679	\$22,394	\$122,770	\$1,697	\$116,303
All other countries.....	121,045	109,931	777,152	36,220	210,679	20,633	1
<b>Total .....</b>	<b>268,932</b>	<b>142,388</b>	<b>822,831</b>	<b>58,614</b>	<b>333,449</b>	<b>22,330</b>	<b>116,304</b>

Imported from—	Tobacco.	Vessels.		Walking sticks, umbrel-las, and parasols.	Broom corn.	All other articles.
	All other.	Steam.	Sailing.			
United States.....	\$210,131	\$91,249	\$176,243	\$16,180	\$51,419	\$9,061,106
All other countries.....	11,928	459,312	12,920	103,565	2,109	6,090,324
<b>Total .....</b>	<b>222,059</b>	<b>550,561</b>	<b>189,163</b>	<b>119,745</b>	<b>53,528</b>	<b>15,171,432</b>

RECAPITULATION.

Group.	Articles imported.	United States.	Per cent.	All other countries.	Per cent.	Total.
1	Animals and animal products..	\$11,146,526	28	\$29,218,217	72	\$40,364,743
2	Foodstuffs.....	40,656,444	54	34,577,006	46	75,233,450
3	Liquors and beverages.....	1,902,096	18	8,531,901	82	10,433,997
4	Cotton, silk, vegetable fibers, wool, etc.....	3,458,212	10	30,278,566	90	33,736,778
5	Metals and metal manufactures.....	14,777,502	71	5,988,188	29	20,765,690
6	Chemicals, drugs, dyes, paints, etc.....	2,281,297	46	2,723,053	54	5,004,350
7	Clay, earth, and manufactures.....	719,348	46	869,562	54	1,588,910
8	Marble and stone.....	178,842	40	274,898	60	453,740
9	Glass and glassware.....	676,309	37	1,163,148	63	1,839,457
10	Paper and manufactures.....	1,076,391	29	2,636,156	71	3,712,527
11	Wood and manufactures.....	5,364,453	82	1,168,323	18	6,532,776
12	Oils.....	2,118,134	92	205,614	8	2,323,748
	Miscellaneous.....	13,434,756	57	10,012,213	43	23,446,969
	<b>Total.....</b>	<b>97,790,310</b>	<b>43</b>	<b>127,646,825</b>	<b>57</b>	<b>225,437,135</b>

\*The importation of gold and silver amounted to \$13,920,844, and is not included in these figures.

CUBAN EXPORTS DURING AMERICAN OCCUPATION.

Exported to—	Animals, including fowls.	Animal products.	Asphal-tum.	Cacao.	Coffee.
United States.....	\$13,430	\$110,768	\$82,701	\$1,147,108	\$1,183
All other countries.....	4,741	31,903	8,487	283,608	4,749
<b>Total .....</b>	<b>18,171</b>	<b>142,671</b>	<b>91,188</b>	<b>1,430,716</b>	<b>5,932</b>

Exported to—	Chemicals, drugs, and dyes.		Fibers, vegetable.		
	Tintarron.	All other.	Hemp.	Aleo fiber.	Yarey.
United States.....	\$2,039	\$5,691	\$36,219	\$22,200	\$6,584
All other countries.....	82,576	24,770	8,609	184,548	51,442
<b>Total .....</b>	<b>84,615</b>	<b>30,461</b>	<b>44,828</b>	<b>206,748</b>	<b>58,026</b>

*Cuban exports during American occupation—Continued.*

Exported to—	Fibers, vegetable.			Fruits.	
	Sisal grass.	Manufactures of.	All other.	Bananas.	Oranges and lemons.
United States.....	\$27,578	\$564	\$11,958	\$1,165,987	\$3,730
All other countries.....	20,016	161	76,694	20	.....
Total.....	47,594	725	88,652	1,166,007	3,730

Exported to—	Fruits.		Nuts.		
	Pineapples.	All other.	Cocoanuts.	Copra.	All other.
United States.....	\$471,835	\$389,391	\$494,325	\$22,079	45
All other countries.....	270	895	2,643	.....	.....
Total.....	472,105	390,286	496,968	22,079	45

Exported to—	Glass and glassware.	Hides and skins.	Honey.	Iron and steel.	
				Iron ore.	Manganese ore.
United States.....	\$12,242	\$310,089	\$177,726	\$1,993,631	\$594,084
All other countries.....	250	536,941	416,838	70,608	.....
Total.....	12,492	847,030	594,564	2,064,239	594,084

Exported to—	Iron and steel.		Leather and manufactures of.	Metal and metal compositions.	
	Scrap iron.	Manufactures of.		Copper and manufactures of.	All other.
United States.....	\$32,501	\$95,000	\$9,921	\$83,164	\$4,706
All other countries.....	1,299	39,498	943	10,028	3,978
Total.....	33,800	134,498	10,864	93,192	8,684

Exported to—	Oils.	Paraffin, stearine, and wax.	Seeds.	Shells.	
				Tortoise.	All other.
United States.....	\$114,683	\$172,359	\$752	\$4,323	\$5
All other countries.....	.....	642,269	645	92,456	90
Total.....	114,683	814,628	1,397	96,779	95

Exported to—	Sponges.	Distilled spirits.		Sugar and molasses.	
		Rum.	All other.	Sugar, raw.	Sugar, refined.
United States.....	\$346,290	\$86,102	\$6,466	\$75,077,645	.....
All other countries.....	563,111	527,843	200,584	12,299	\$11,006
Total.....	911,401	613,945	207,050	75,089,944	11,006

Exported to—	Sugar and molasses.		Tobacco.		
	Molasses and sirup.	Candy and confectionery.	Leaf.	Other unmanufactured.	Cigars.
United States.....	\$2,540,474	\$30,700	\$31,547,426	\$30,390	\$13,636,649
All other countries.....	8,978	18,539	8,883,521	286,731	27,263,789
Total.....	2,549,452	49,239	40,430,947	316,111	40,900,438

*Cuban exports during American occupation—Continued.*

Exported to—	Tobacco.		Vegetables.	Woods.	
	Cigarettes.	All other.		Mahogany.	Sapan.
United States.....	\$109,572	\$76,644	\$190,400	\$488,401	\$31,195
All other countries.....	914,272	249,131	87,194	362,063	43,002
<b>Total</b> .....	<b>1,023,844</b>	<b>325,775</b>	<b>277,594</b>	<b>850,464</b>	<b>74,197</b>

Exported to—	Woods.		Miscellaneous.	Reexportation.	
	Other unmanufactured.	Manufactures of.		Provisions.	All other.
United States.....	\$1,232,855	\$16,858	\$1,577,420	\$66,286	\$703,776
All other countries.....	861,451	2,917	2,021,649	12,886	258,986
<b>Total</b> .....	<b>2,094,306</b>	<b>19,775</b>	<b>3,599,069</b>	<b>79,172</b>	<b>962,762</b>

RECAPITULATION.

Articles exported.	United States.	Per cent.	All other countries.	Per cent.	Total.
Tobacco and manufactures.....	\$45,400,671	55	\$37,596,444	45	\$82,997,115
Sugar and molasses .....	77,648,819	100	50,822	.....	77,699,641
Wood, unmanufactured .....	1,752,451	58	1,266,516	42	3,018,967
Iron and manganese ore .....	2,587,715	97	70,608	3	2,658,323
Fruits and nuts .....	2,547,392	100	3,828	.....	2,551,220
All other articles .....	5,479,092	47	6,204,709	53	11,683,801
<b>Total</b> .....	<b>135,416,140</b>	<b>75</b>	<b>45,192,927</b>	<b>25</b>	<b>180,609,067</b>

<sup>a</sup>The exportation of gold and silver amounted to \$10,379,772 and is not included in these figures.



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**REPORT OF THE ADJUTANT-GENERAL.**

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ANNUAL REPORT  
OF THE  
ADJUTANT-GENERAL.

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WAR DEPARTMENT,  
ADJUTANT-GENERAL'S OFFICE,  
*Washington, November 1, 1902.*

SIR: The following returns of the Army for the fiscal year ended June 30, 1902, are respectfully submitted:

A.—Strength of the Regular Army of the United States, June 30, 1901, and June 30, 1902, with losses from all causes between those dates.

B.—Strength of the Army by divisions, departments, etc., between July, 1901, and June, 1902.

C.—Statement showing the monthly strength and losses from all causes in the armies of the United States between July 1, 1901, and June 30, 1902.

D.—Deaths in the armies of the United States between July, 1901, and June 30, 1902.

E.—Dates of sailing, and troops sent to the Philippine Islands.

F.—Retirements, resignations, deaths, etc., among officers between October 1, 1901, and October 1, 1902.

THE ARMY.

Under the act of February 2, 1901, to increase the efficiency of the permanent military establishment of the United States, the enlisted maximum strength of the Army (including the corps of Philippine scouts, which was limited to 12,000 in number) was not to exceed 100,000 men, and in May of that year the President authorized the organization of the Army on a basis of 77,287 enlisted men. July 1, 1902, the maximum strength was reduced to 66,711, and October 24, 1902, it was further reduced to 59,866; and to carry out the orders to reduce the army to the strength prescribed by General Orders, No. 108, A. G. O., October 25, 1902 (59,866), the following instructions have been given by cable to the commanding general, Division of the Philippines:

To reduce the enlisted strength of the cavalry and infantry of his command by December 1 next by transferring therefrom to coast and field artillery and engineers men who are fit and willing, so as to bring the artillery and engineer company organizations to the strength

authorized. Of the enlisted force of cavalry and infantry remaining, 2,000 to be discharged, in the following order of precedence:

First. Those discharged for the good of the service, particularly such as are serving long sentences of general court-martial. Of this latter class, discretionary authority has been given to discharge without honor all whose service, as determined under A. R. 162, has not been honest and faithful, without requiring proceedings of boards to be sent to the Secretary of War.

Second. Those who by illness or climatic influence are run down and out of condition. Discharge to be given on account of services being no longer required or on surgeon's certificate, as justice to men and interests of the Government demand; and if necessary, then

Third. Those serving in last year of enlistment who do not intend to reenlist. Discharges to be on account of services being no longer required.

Fourth. Deserving men not in last year of service who desire discharge for cogent reasons. Discharge to be on account of services being no longer required.

He has been further informed that the reduction of the enlisted strength of cavalry and infantry of his command should continue by ordinary expirations, etc., until strength of 65 enlisted men per company organization is reached.

Instructions have also been given to the several department commanders in the United States that all organizations of infantry and cavalry in their respective commands shall be reduced to 65 per company, in a very short time, by transfers, and through discharges in the order of precedence indicated in cablegram to the commanding general, Division of the Philippines.

In this reduction exception has been made in favor of the organizations stationed at Forts Leavenworth and Riley, Pekin, and in Alaska.

The effect of these instructions will be to make the enlisted strength of the Army at an early date, exclusive of the Hospital Corps, Philippine scouts, and Porto Rico regiment, as follows:

In Philippines .....	13, 480
Coast artillery in United States, Cuba, and Hawaii .....	13, 298
Field artillery in United States .....	3, 320
Nine bands and sergeants-major .....	300
Cavalry in United States (including bands, regimental, and squadron noncommissioned staff) .....	8, 460
Infantry in United States (including bands, regimental and battalion noncommissioned staff) .....	16, 645
Infantry in Pekin .....	150
Infantry in Alaska .....	624
Engineers in United States (including band) .....	866
	57, 143

## STAFF DEPARTMENTS.

U. S. Military Academy .....	342
Signal Corps .....	810
Ordnance Department (including ordnance-sergeants) .....	700
Post commissary-sergeants .....	200
Post quartermaster-sergeants .....	150
Electrician-sergeants .....	100
Indian scouts .....	75
Recruiting parties and recruits .....	500
	2, 877
Total .....	60, 020

The excess of 154 over the total of 59,866 authorized in G. O. No. 108 is explained as follows:

6 companies in Alaska allowed to retain temporarily 39 extra men, each..... 234  
Deduct 4 troops of cavalry at Fort Riley, not yet at station, at 20 extra, each. 80

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Under restrictions imposed upon the recruiting service by General Orders, 108, and the additional contraction thereof resulting from the policy of reduction as directed by telegrams and circular letters to recruiting officers, the enlistments during the month of November will be no more than necessary to keep the artillery and engineers at the proposed strength. As soon as the excess in the Philippines is absorbed and all company organizations of cavalry and infantry there stationed are brought down to 65, it will be necessary to continue the recruiting service as organized just prior to this reduction, since experience shows that the results thereof, owing to the system of careful selection of recruits, will only be to produce the number necessary to keep up the Army to the enlisted strength authorized (59,866).

The actual strength of the Army on October 15, 1902, was 3,586 officers and 66,003 enlisted men, as shown by the following table, which, in detail, gives the strength of the several corps, departments, regiments, etc.:

Department, corps, or regiment.	Officers.	Enlisted men.	Total.
General officers.....	21		21
Adjutant-General's Department.....	27		27
Inspector-General's Department.....	17		17
Judge-Advocate General's Department.....	12		12
Quartermaster's Department.....	94	149	243
Subsistence Department.....	44	200	244
Medical Department.....	271	3,598	3,869
Pay Department.....	53		53
Corps of Engineers.....	149	1,167	1,316
Ordnance Department.....	58	662	720
Signal Corps.....	35	697	732
Record and Pension Office.....	2		2
Chaplains.....	54		54
Electrician sergeants.....		64	64
<b>First Cavalry.....</b>	<b>49</b>	<b>899</b>	<b>948</b>
<b>Second Cavalry.....</b>	<b>49</b>	<b>911</b>	<b>960</b>
<b>Third Cavalry.....</b>	<b>47</b>	<b>803</b>	<b>850</b>
<b>Fourth Cavalry.....</b>	<b>48</b>	<b>775</b>	<b>823</b>
<b>Fifth Cavalry.....</b>	<b>50</b>	<b>881</b>	<b>931</b>
<b>Sixth Cavalry.....</b>	<b>50</b>	<b>856</b>	<b>906</b>
<b>Seventh Cavalry.....</b>	<b>48</b>	<b>876</b>	<b>924</b>
<b>Eighth Cavalry.....</b>	<b>47</b>	<b>782</b>	<b>829</b>
<b>Ninth Cavalry.....</b>	<b>50</b>	<b>1,074</b>	<b>1,124</b>
<b>Tenth Cavalry.....</b>	<b>47</b>	<b>935</b>	<b>982</b>
<b>Eleventh Cavalry.....</b>	<b>49</b>	<b>1,019</b>	<b>1,068</b>
<b>Twelfth Cavalry.....</b>	<b>49</b>	<b>860</b>	<b>909</b>
<b>Thirteenth Cavalry.....</b>	<b>50</b>	<b>856</b>	<b>906</b>
<b>Fourteenth Cavalry.....</b>	<b>50</b>	<b>890</b>	<b>940</b>
<b>Fifteenth Cavalry.....</b>	<b>50</b>	<b>1,085</b>	<b>1,135</b>
<b>Total cavalry.....</b>	<b>783</b>	<b>13,502</b>	<b>14,285</b>
<b>Artillery Corps:</b>			
30 field batteries.....	112	3,599	3,711
126 companies coast artillery.....	527	13,011	13,538
Sergeant-majors.....		48	48
10 bands.....		253	253
<b>Total artillery.....</b>	<b>639</b>	<b>16,911</b>	<b>17,550</b>
<b>First Infantry.....</b>	<b>47</b>	<b>1,449</b>	<b>1,496</b>
<b>Second Infantry.....</b>	<b>47</b>	<b>1,348</b>	<b>1,395</b>
<b>Third Infantry.....</b>	<b>46</b>	<b>751</b>	<b>797</b>
<b>Fourth Infantry.....</b>	<b>46</b>	<b>809</b>	<b>855</b>
<b>Fifth Infantry.....</b>	<b>47</b>	<b>1,167</b>	<b>1,214</b>

Department, corps, or regiment.	Officers.	Enlisted men.	Total.
Sixth Infantry .....	44	780	824
Seventh Infantry .....	46	909	955
Eighth Infantry .....	44	879	923
Ninth Infantry .....	45	834	879
Tenth Infantry .....	50	1,284	1,334
Eleventh Infantry .....	47	1,444	1,491
Twelfth Infantry .....	44	814	858
Thirteenth Infantry .....	44	756	800
Fourteenth Infantry .....	44	908	952
Fifteenth Infantry .....	46	967	1,013
Sixteenth Infantry .....	47	863	910
Seventeenth Infantry .....	45	823	868
Eighteenth Infantry .....	44	868	912
Nineteenth Infantry .....	48	430	478
Twentieth Infantry .....	49	765	814
Twenty-first Infantry .....	44	707	751
Twenty-second Infantry .....	46	872	918
Twenty-third Infantry .....	43	714	757
Twenty-fourth Infantry .....	44	1,126	1,170
Twenty-fifth Infantry .....	43	1,187	1,230
Twenty-sixth Infantry .....	45	1,167	1,202
Twenty-seventh Infantry .....	48	1,412	1,460
Twenty-eighth Infantry .....	47	1,278	1,325
Twenty-ninth Infantry .....	49	1,499	1,548
Thirtieth Infantry .....	48	1,257	1,305
Total infantry .....	1,377	30,057	31,434
West Point detachment .....		409	409
Recruits, etc. ....		1,899	1,899
Discharge camp, California .....		225	225
Indian scouts.....		61	61
Total .....		2,594	2,594
Grand total.....	3,586	66,003	69,589

<sup>a</sup> Enlisted men of the Hospital Corps not included in the grand total.

In addition, there are in the service the following:

Enlisted men of the Hospital Corps, not included as part of the enlisted force of the Army under the provisions of the act of March 1, 1887 (3,598 men) .....	3,598
Porto Rico regiment (29 officers, 840 men) .....	869
Philippine scouts (100 officers, 4,978 men) .....	5,078
Medical officers, volunteers (182 officers) .....	182
Total (311 officers, 9,416 men) .....	9,727

*Distribution of the Army, October 15, 1902.*

Country.	Officers.	Enlisted men.	Hospital Corps.	Total.
United States .....	2,476	44,163	1,868	48,507
Philippine Islands.....	1,039	19,800	1,594	22,433
Cuba.....	26	819	39	884
Porto Rico.....	11	228	37	276
Hawaiian Islands.....	9	198	15	222
China.....	2	131	5	138
Alaska.....	23	664	40	727
Total.....	3,586	66,003	3,596	73,187

In addition to the above there are serving—

In United States, 24 medical officers, volunteers. All volunteer medical officers are under orders for honorable discharge on account of service being no longer required. This will be accomplished as fast as they reach the United States.

In Porto Rico, 29 officers and 840 enlisted men, Porto Rico regiment.

In Philippine Islands, 158 medical officers, volunteers; 100 officers and 4,978 enlisted men, Philippine scouts.

The total number of the losses in the Army during the year ended June 30, 1902, was 47,727, as follows:

<b>Officers:</b>		
Killed in action, died of wounds or disease, etc.....	35	
Resigned, etc.....	21	
Retired.....	68	
		124
<b>Enlisted men:</b>		
Killed in action, died of wounds or disease, etc.....	1,227	
Discharged upon expiration of term of service.....	35,806	
Discharged for disability, by sentence of court-martial, and by order.....	5,698	
Deserted.....	4,667	
Missing.....	2	
Retired.....	203	
		47,603
<b>Total.....</b>		<b>47,727</b>

Seventeen officers and 172 men were wounded.

The partial increase of the Army in 1898 by reason of the breaking out of hostilities with Spain and its reorganization with increased numbers on the disbandment of the large Volunteer Army called into service during the Spanish-American war necessitated the appointment of a large number of officers. Of the 1,740 appointments made since January 1, 1898, as shown by the following table, 276 were of graduates of the Military Academy, 376 were of enlisted men of the Army, 477 from civil life, and 615 from ex-officers and enlisted men of volunteers. All appointments were made to the grade of second lieutenants, except 216 of those made from ex-officers and enlisted men of volunteers, which were to the grade of first lieutenant—65 in the cavalry, 82 in the artillery, and 69 in the infantry.

Whence made.	Cavalry.	Artillery.	Infantry.	Total.
<b>Year ending December 31, 1898:</b>				
Military Academy.....	12	40	52	
Enlisted men, U. S. Army.....	12	15	27	
Civil life.....	56	148	204	
<b>Total.....</b>	<b>80</b>	<b>203</b>	<b>283</b>	
<b>Year ending December 31, 1899:</b>				
Military Academy.....	12	15	27	66
Enlisted men, U. S. Army.....	10	44	54	
Civil life.....	28	152	180	
<b>Total.....</b>	<b>50</b>	<b>15</b>	<b>235</b>	<b>300</b>
<b>Year ending December 31, 1900:</b>				
Military Academy.....	22	17	10	49
Enlisted men, U. S. Army.....	6	1	59	66
Civil life.....	2	17	19	
<b>Total.....</b>	<b>30</b>	<b>18</b>	<b>86</b>	<b>134</b>
<b>Year ending December 31, 1901:</b>				
Military Academy.....	34	28	62	62
Enlisted men, U. S. Army.....	66	28	121	215
Volunteer officers and enlisted men.....	162	135	199	496
Civil life.....	7	11	10	28
<b>Total.....</b>	<b>269</b>	<b>202</b>	<b>330</b>	<b>801</b>
<b>Six months ending June 30, 1902:</b>				
Military Academy.....	24	13	10	47
Enlisted men, U. S. Army.....	4	2	8	14
Volunteer officers and enlisted men.....	17	73	29	119
Civil life.....	3	7	32	42
<b>Total.....</b>	<b>48</b>	<b>95</b>	<b>79</b>	<b>222</b>
<b>Grand total.....</b>	<b>397</b>	<b>410</b>	<b>933</b>	<b>1,740</b>

The probable number of enlisted men in the Army during the fiscal year ending June 30, 1904, who will be entitled to increased pay under the acts of August 4, 1854, and May 15, 1872, is as follows:

*Under act of August 4, 1854.*

5 years' continuous service (\$2 per month).....	5,618
10 years' continuous service (\$3 per month).....	2,068
15 years' continuous service (\$4 per month).....	1,387
20 years' continuous service (\$5 per month).....	851
25 years' continuous service (\$6 per month).....	333
30 years' continuous service (\$7 per month).....	43

*Under act of May 15, 1872.*

\$1 per month for third year of service .....	15,570
\$2 per month for fourth year of service .....	7,320
\$3 per month for fifth year of service .....	6,260

Showing the presence in the ranks of 19,181 men who have served more than three years and 4,682 men who have a continuous service of five years and upward.

The probable number of men who will be entitled to discharge by reason of expiration of term of service is 14,119.

CHINA.

Company B, Ninth Infantry, has been retained in China as guard to the United States legation, to be governed in all except strictly professional and administrative matters by the wishes and desires of the United States minister. The instructions to the commanding officer of the guard state that his force will be used to repel attacks made on the American legation or its own position, and, if necessary to do so, may fire upon the assailants, but must not be used aggressively unless in defense of the American legation or of persons or property of American citizens in its immediate vicinity. The guard may cooperate with other foreign troops for defense of the legations in event of attack being made on same.

CUBA.

On the withdrawal of the army from Cuba, May 20, 1902, a small force, consisting of eight companies of the coast artillery, remained on the island for temporary purposes. Four companies are stationed at Habana, two at Cienfuegos, and two at Santiago. The total strength there now is 26 officers and 858 enlisted men.

PORTO RICO.

In addition to the Porto Rico native regiment which, October 15, 1902, numbered 29 officers and 840 enlisted men, there were on duty in that island two companies of coast artillery, 11 officers and 265 enlisted men.

THE PHILIPPINES.

Under the provisions of the act of July 1, 1902, "temporarily to provide for the administration of affairs of civil government in the Philippine Islands," the commanding general of the Division of the

Philippines was relieved from the further performance of the duties of military governor of the archipelago and that office discontinued.

July 1, 1902, 201 stations in the islands were occupied by the troops, and 50 companies of Philippine scouts were in service.

The following troops are now serving in the Philippines:

	Officers.	Enlisted men.
Second battalion, United States Engineers.....	27	412
First, Fifth, Sixth, Eleventh, and Fifteenth regiments, cavalry.....	248	4,740
Fourteenth, Fifteenth, and Twenty-fifth batteries, field artillery.....	12	358
Twenty-fifth, Twenty-seventh, Thirty-first, and Thirty-sixth companies, coast artillery.....	15	423
First, Second, Fifth, Tenth, Eleventh, Twenty-sixth, Twenty-seventh, Twenty-eighth, Twenty-ninth, and Thirtieth regiments, infantry.....	475	13,295
General and staff officers, enlisted men, Signal Corps, Hospital Corps, noncommissioned staff, band, etc.....	262	2,166
<b>Total.....</b>	<b>1,089</b>	<b>21,394</b>

The total number of troops that served in the Philippine Islands between June 30, 1898 (date of first arrival of troops), and July 4, 1902, the ending of the insurrection, was:

	Officers.	Enlisted men.
Regulars.....	1,882	74,534
Volunteers.....	2,185	47,867
<b>Total.....</b>	<b>4,067</b>	<b>122,401</b>

Of this number about 1,135 officers and 23,000 men served there more than once.

The maximum strength there at any one time was in December, 1900, 69,420 officers and men.

The average monthly strength was approximately 40,000.

The casualties during this period were as follows:

	Regulars.		Volunteers.		Total.	
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
<b>Killed.....</b>	<b>32</b>	<b>353</b>	<b>22</b>	<b>388</b>	<b>54</b>	<b>741</b>
<b>Died of—</b>						
Wounds.....	10	96	7	129	17	225
Disease.....	26	1,673	21	1,028	47	2,701
Accident.....	2	96	4	38	6	134
Drowning.....	2	202	4	61	6	263
Suicide.....	3	58	6	15	9	73
Murder or homicide.....	1	69		28	1	97
<b>Total deaths.....</b>	<b>76</b>	<b>2,547</b>	<b>64</b>	<b>1,687</b>	<b>140</b>	<b>4,234</b>
<b>Wounded.....</b>	<b>71</b>	<b>1,165</b>	<b>133</b>	<b>1,653</b>	<b>204</b>	<b>2,818</b>

In this are included 18 enlisted men killed; 1 officer and 14 enlisted men died of wounds; 2 officers and 174 enlisted men died of disease, etc., and 11 officers and 100 enlisted men wounded during the war with Spain, or up to February 4, 1899.

The total contacts with the enemy between February 4, 1899, and July 4, 1902, were 2,811. The larger proportion of these fights were attacks from ambush on the American troops. In almost no case in



these engagements did American troops surrender or retreat or leave their dead and wounded in the possession of the enemy, notwithstanding that in many cases the percentage of loss was high.

The number of killed of the enemy was in many cases estimated. As a rule no estimate was made in reports of the enemy's wounded. His wounded, and often his dead, were carried off before the Americans occupied the hostile positions. The killed of the enemy being, as a rule, overestimated, and the wounded not reported, by the Americans, gave rise to an erroneous impression that the wounded were dispatched, which never happened.

LIST OF PRINCIPAL COMBATS DURING THE PHILIPPINE INSURRECTION, FEBRUARY 4, 1899, TO JULY 4, 1902.

*Engagements around Manila, 1899.*

- Feb. 4, 5, 1899..... Battle of Manila. Thirteen regiments engaged, Maj. Gen. E. S. Otis, commanding. United States loss, 238—44 killed, 194 wounded; insurgent loss, 700 killed, many wounded. Occasion, insurgent attack on our lines. Includes combats at Chinese Hospital, La Loma Church, Passay, San Juan Hill, Santa Mesa, Singalon, Pumping Station, Santa Ana, and San Pedro Macati.
- Feb. 10, 1899..... Battle of Caloocan. Seven regiments engaged, Maj. Gen. Arthur MacArthur, commanding. United States loss, 50—5 killed, 45 wounded; insurgent loss, 200 killed, 800 wounded. Occasion, rectification of United States lines around Manila.
- Feb. 23, 1899..... Battle of Tondo. Seven regiments engaged, Maj. Gen. Arthur MacArthur, commanding. United States loss, 39—5 killed, 34 wounded; insurgent loss, 500 killed and wounded. Occasion, uprising in barrio of Tondo, Manila, in rear of our lines, participated in by insurgent army. Fighting extended to Caloocan. This includes actions at Tondo and Caloocan.
- Mar. 13, 1899..... Battle of Guadalupe Church. Five regiments engaged, Brig. Gen. L. Wheaton, commanding. United States loss, 28—3 killed, 25 wounded; insurgent loss, 200 killed and wounded. Occasion, rectification of United States lines around Manila.
- Mar. 15, 1899..... Battle of Pasig. Three regiments engaged, Brig. Gen. L. Wheaton, commanding. United States loss, 4—1 killed, 3 wounded; insurgent loss, 1,000 killed, wounded, and prisoners. Occasion, capture of city of Pasig.
- Mar. 18, 1899..... Battle of Taguig. One battalion Twenty-second infantry, engaged, Brig. Gen. L. Wheaton, commanding. United States loss, 20—3 killed, 17 wounded; insurgent loss not reported.
- Mar. 31, 1899..... Combat of Nanca River (near Mariquina). Two regiments engaged, Brig. Gen. R. H. Hall, commanding. United States loss, 18—1 killed, 17 wounded; insurgent loss not reported. Occasion, abortive advance toward San Mateo.
- Apr. 9, 1899..... Combat of Santa Cruz. Twenty companies engaged, Maj. Gen. H. W. Lawton, commanding. United States loss, 7 wounded; insurgent loss, 93 killed, many wounded. Occasion, expedition to Santa Cruz, on Laguna de Bay.
- June 13, 1899..... Zapote River. Four regiments engaged, Maj. Gen. H. W. Lawton, commanding. United States loss, 45—8 killed, 37 wounded; insurgent loss, 150 killed, 375 wounded.
- Aug. 12, 1899..... Combat of San Mateo. Seven companies engaged, Capt. James Parker, Fourth Cavalry, commanding. United States loss, 20—4 killed, 16 wounded; insurgent loss, 24 killed, wounded not reported. Occasion, capture of town of San Mateo. Town evacuated by United States forces next day.
- Dec. 19, 1899..... Combat of San Mateo. Two regiments engaged. Maj. Gen. H. W. Lawton, commanding. United States loss, 14—1 killed, 13 wounded. General Lawton killed. Insurgent loss, 40 killed, 125 wounded. Occasion, capture of town of San Mateo.

*Advance to Malolos, Maj. Gen. Arthur MacArthur, commanding.*

- General MacArthur estimates 1,000 insurgents killed and many wounded in this advance.
- Mar. 25, 26, 1899.....Battle of Tuliahan River. Ten regiments engaged. United States loss, 29 killed, 200 wounded, including Col. H. C. Egbert, Twenty-second Infantry, U. S. A. Insurgent loss not reported. Includes attack of entrenchments at Caloocan and San Francisco del Monte, March 25, and assault of entrenched defenses of town of Melinto and action at Meycauyan, March 26.
- Mar. 27, 1899.....Battle of Marilao River. Seven regiments engaged. United States loss, 79—14 killed, 65 wounded; insurgent loss not reported. Main action, crossing Marilao River under fire and assault of intrenchments on other side of river.
- Mar. 29-30, 1899.....Battle of Malolos. Eight regiments engaged. United States loss, 13—8 killed, 105 wounded; insurgent loss not reported. Main actions, the crossing under fire of the Bocaue River and of the Guiguinto River, and engagements in front of Malolos and at Melinto.

*Advance to San Fernando, Maj. Gen. Arthur MacArthur, commanding.*

- Apr. 23-27, 1899.....Battle of Calumpit. Eight regiments engaged. United States loss, 149—22 killed, 127 wounded. Col. J. M. Stotsenburg, First Nebraska, killed; insurgent loss, 200 killed, many wounded. Main actions, crossing under fire of Bagbag River, April 23 and 24; crossing under fire of Rio Grande, April 27; includes actions at Buingua, Norzagary, Pulilan, Angat, and Apalit. Notable exploits, Col. F. Funston's passage by swimming of Bagbag River under fire April 25; forcing passage of Rio Grande under fire April 27.
- May 4, 1899.....Combat of Santo Tomas. Five regiments engaged. United States loss, 32—5 killed, 27 wounded; insurgent loss not reported.

*Advance to Tarlac, October and November, 1899, Maj. Gen. Arthur MacArthur, commanding.*

- Oct. 16, 1899.....Combat of Angeles. Three regiments engaged. United States loss, 10—1 killed, 9 wounded; insurgent loss not reported.
- Nov. 11, 1899.....Combat of Bamban. Four regiments engaged. United States loss, 2—2 wounded; insurgent loss not reported.

*General Wheaton's expedition to Dagupan, 1899.*

- Nov. 11, 1899.....Combat of San Jacinto. Thirty-third Infantry engaged. United States loss, 22—7 killed, 15 wounded. Insurgent loss, 134 killed; wounded not reported. Maj. J. A. Logan killed.

*General Young's raid to the north, November and December, 1899.*

- Nov. 14, 1899.....Combat of Manoag. Three troops Third Cavalry engaged. Brig. Gen. S. B. M. Young, commanding. United States loss, none; insurgent loss not known. Occasion, charge of cavalry, totally dispersing 1,300 men of Aguinaldo's army.
- Nov. 19, 1899.....Combat of Santa Tomas. Two troops Third Cavalry engaged. Maj. S. M. Swigert, commanding. United States loss, 8—1 killed, 7 wounded; insurgent loss, 9 killed.
- Dec. 2, 1899.....Combat of Tila Pass. One battalion, Thirty-third Infantry, engaged, Maj. P. C. March, commanding. United States loss, 11—2 killed, 9 wounded; insurgent loss, 52 killed and wounded.
- Dec. 4, 1899.....Combat of Tangadan Mountain. Two battalions, Thirty-third and Thirty-fourth Infantry, engaged, Brig. Gen. S. B. M. Young, commanding. United States loss, 13; insurgent loss, 115—35 killed, 80 wounded.

- Dec. 4, 1899.....Combat of Vigan. One company and detachment, Thirty-third Infantry, engaged, Lieut. Col. J. Parker, commanding. United States loss, 11—8 killed, 3 wounded; insurgent loss, 100 killed. Attacked in barracks at night by superior force.

*Occupation of southern provinces of Luzon, January and February, 1900.*

PRINCIPAL COMBATS.

- Jan. 6, 1900.....Binang. Brig. Gen. Theodore Schwan's expedition. United States loss, 2—1 killed, 1 wounded; insurgent loss, 45 killed, wounded, and missing.
- Jan. 7, 1900.....Imus. Thirty-eighth Volunteers, Col. W. E. Birkhimer, commanding. United States loss, 8—8 wounded; insurgent loss, 245 killed and wounded.
- Jan. 19, 1900.....Taal. Battalion Thirty-eighth Infantry, Maj. E. M. Johnston, jr., commanding. United States loss, 6 wounded; insurgent loss, 15 killed and wounded.
- Jan. 21, 1900.....San Pablo. Brig. Gen. Theodore Schwan's expedition. United States loss, 14—1 killed, 13 wounded; insurgent loss, 37 killed; wounded unknown.
- Jan. 23, 1900.....Legaspi, Province of Albay. Forty-seventh Infantry, Brig. Gen. W. A. Kobbé, commanding. United States loss, 7 wounded; insurgent loss, 50 killed and wounded.
- Feb. 20, 1900.....Libmanan, Province of Camarines. Fortieth Infantry, Col. E. A. Godwin, commanding. United States loss, 9 killed and wounded; insurgent loss, 85 killed, wounded, and prisoners.

*Isolated engagements, 1900.*

- Mar. 26, 1900.....Near Antimonan, Tayabas. Battalion Thirtieth Infantry, Maj. J. F. Hartigan, commanding. Loss of insurgents, 133 killed, wounded, and prisoners.
- Apr. 7, 1900.....Cagayan. Garrisoned by battalion Fortieth Infantry, Col. E. A. Godwin, commanding. Attacked by large body of insurgents. United States loss, 4 killed, 9 wounded; insurgent loss, 38 killed; wounded not known.
- Apr. 15, 1900.....Catubig, Samar. Detachment Forty-third Infantry, besieged by large force of insurgents. United States loss, 23—19 killed, 4 wounded; insurgent loss, 200 killed.
- Apr. 15, 1900.....Jaro, Leyte. Detachment company, Forty-third Infantry, Lieut. C. C. Estes, commanding. Attacked in barracks by insurgents. United States loss, none; insurgent loss, 125 killed.
- Apr. 15, 1900.....Cullambang, Ilocos. Troop F, Third Cavalry, Capt. G. A. Dodd, commanding, attacks insurgents' stronghold. United States loss, none; insurgent loss, 97—53 killed, 44 captured.
- Apr. 16, 1900.....Batac, near Laoag, Ilocos. Company G, Thirty-fourth Infantry, Capt. C. J. Rollis, commanding, attacked in barracks. United States loss, 5—2 killed, 3 wounded; insurgent loss, 265 killed, wounded, and prisoners.
- Apr. 17, 1900.....Laoag, Ilocos. Companies F, G, and H, Thirty-fourth Infantry, Lieut. Col. R. L. Howze, commanding. United States loss, none; insurgent loss, 152 killed, wounded, and prisoners.
- Apr. 30, 1900.....Catarman, Samar. Company F, Forty-third Infantry, attacked in station by insurgents. United States loss, 2 wounded; insurgent loss, 154 killed, many wounded.
- May 14, 1900.....Misamis, Mindanao. Detachment 25 men, Company C, Fortieth Infantry, Capt. W. McK. Lambdin, commanding. Attacked by 200 insurgents. United States loss, 12 killed and wounded; insurgent loss, 77 killed and wounded.
- May 28, 1900.....Lobo, province of Camarines. Detachment Forty-fifth Infantry ambushed. Capt. A. Steinhauser, commanding. United States loss, 9—3 killed, 6 wounded; insurgent loss, not reported.
- July 4, 1900.....Ponoranda, Gapan, and Maniclin, Luzon. Garrisoned by detachments of Twenty-fourth and Thirty-fourth Infantry. Attacked by insurgents. United States loss, 4—1 killed, 3 wounded; insurgent loss, over 100 killed and wounded.

- July 12, 1900.....Oroquieta, Mindanao. Company I, Fortieth Infantry, Lieut. K. C. Masteller, commanding. Garrison attacked by insurgents. United States loss, 3—2 killed, 1 wounded; insurgent loss, 101 killed and wounded.
- Sept. 14, 1900.....Torrijos, Mindoro. Company F, Twenty-ninth Infantry, engaged. Capt. Devereux Shields, commanding. United States loss, 60—4 killed, 6 wounded, and 50 captured; insurgent loss, not known.
- Sept. 16, 1900.....Navitac, Laguna Province. Company L, Fifteenth Infantry, Company L, Thirty-seventh Infantry, Company K, Fifteenth Infantry. Capt. D. D. Mitchell, Fifteenth Infantry, commanding. United States loss, killed and wounded in ambush, 57; insurgent loss, 10 killed, 20 wounded.
- Oct. 14, 1900.....Ormoc, Leyte. Troops engaged, Company D, Forty-fourth Infantry, Lieut. R. W. Buchanan commanding. United States loss, none; insurgent loss, 116 killed, wounded not reported.
- Oct. 21, 1900.....Looc, Batangas. Detachment 20 men, Twenty-eighth Infantry, Capt. George W. Biegler commanding, defeated 400 insurgents. United States loss, 6 killed and wounded; insurgent loss, 75 killed and wounded.
- Oct. 24, 1900.....Barrio Casucos, Ilocos. Detachments Thirty-third Infantry and Third Cavalry, First Lieut. George L. Febiger commanding, ambushed by 400 riflemen. United States loss, Lieutenant Febiger and 4 men killed, 9 wounded, 5 missing; insurgent loss, 150 killed and wounded.
- Oct. 30, 1900.....Bugasan, Panay. Garrisoned by Company E, Nineteenth Infantry, Capt. F. H. French, Nineteenth Infantry, commanding, attacked by insurgents. United States loss, 4 killed and wounded; insurgent loss, 54 killed, 21 wounded, 21 captured.

*Isolated engagements, 1901.*

- June 10, 1901.....Near Lipa. Company D, Forty-fifth Infantry, ambushed by 500 insurgents. Capt. W. H. Wilhelm, commanding. Lieut. A. M. Springer, Twenty-first Infantry, and Lieut. W. H. Lee, Corps of Engineers, killed. United States loss, 6 killed and wounded; insurgent loss, unknown.
- Sept. 28, 1901.....Balangiga, Samar. Company C, Ninth Infantry, Capt. Thomas W. Connell, commanding. Attacked by 400 natives. United States loss, 3 officers, 32 men killed, 24 wounded, 8 missing; officers killed, Captain Connell, Lieut. E. A. Bumpus, and Maj. R. S. Griswold, surgeon. Insurgent loss, 140 killed and wounded.
- Oct. 16, 1901.....Gandara River. Detachment Company B, Ninth Infantry, ambushed. United States loss, 10 killed, 6 wounded. Insurgent loss, 83 killed.

*Isolated engagements, 1902.*

- May 2, 1902.....Bayan, Mindanao. Twenty-seventh Infantry, Col. F. D. Baldwin, commanding. United States loss, 51; 8 killed, 43 wounded. Moro loss, several hundred killed.

## LIST OF OFFICERS KILLED AND DIED OF WOUNDS OR DISEASE, ETC., IN THE PHILIPPINE ISLANDS, TO OCTOBER 1, 1902.

## KILLED (54).

Adams, Frank H., first lieutenant, First South Dakota Volunteer Infantry, in action at Marilao, March 27, 1899.

Alford, Alfred C., second lieutenant, Twentieth Kansas Volunteer Infantry, in action near Caloccan, February 7, 1899.

Bean, Robert R., second lieutenant, Philippine Scouts, in action at Mount Malary, October 8, 1901.

Boutelle, Henry M., second lieutenant, Third Artillery, in action near Aliaga, November 2, 1899.

Brown, William, captain, Forty-fifth Infantry, United States Volunteers, in action at Guidiang, August 17, 1900.

- Bumpus, Edward A., first lieutenant, Ninth Infantry, in action at Balangiga, September 28, 1901.
- Cheney, Ward, first lieutenant, Fourth Infantry, in action at Puente Julien, January 7, 1900.
- Connell, Thomas W., captain, Ninth Infantry, in action at Balangiga, September 28, 1901.
- Cooper, George A., second lieutenant, Fifteenth Infantry, in action at Mavitac, September 17, 1900.
- Crockett, Allen T., second lieutenant, Twenty-first Infantry, in action at Candalaria, September 24, 1901.
- Davis, Julian L., second lieutenant, Thirty-sixth Infantry, United States Volunteers, in action at Bamban, November 11, 1899.
- Downes, Edward E., first lieutenant, First Infantry, in action near Salcedo, June 23, 1901.
- Drew, Alfred W., first lieutenant, Twelfth Infantry, in action near Angeles, August 19, 1899.
- Egbert, Harry C., colonel, Twenty-second Infantry, in action at Melinto, March 26, 1899.
- Eldridge, Bogardus, captain, Fourteenth Infantry, in action near Bacoor, October 2, 1899.
- Elliot, David S., captain, Twentieth Kansas Volunteer Infantry, in action at Caloocan, February 28, 1899.
- Evans, John H., first lieutenant, Forty-third Infantry, United States Volunteers, in action near Matignac, May 11, 1900.
- Febiger, George L., first lieutenant, Thirty-third Infantry, United States Volunteers, in action near Narbacan, October 24, 1900.
- Fortson, George H., captain, First Washington Volunteer Infantry, in action at Pasig, March 26, 1899.
- French, Eugene, second lieutenant, First Montana Volunteer Infantry, in action at Caloocan, February 23, 1899.
- Godfrey, George J., captain, Twenty-second Infantry, in action at Bulacan Mountain, June 3, 1900.
- Gregg, John C., captain, Fourth Infantry, in action in Mariguina Valley, March 31, 1899.
- Griswold, Richard, major., surgeon, United States Volunteers, in action at Balangiga, September 28, 1901.
- Grubbs, Hayden Y., first lieutenant, Sixth Infantry, in action near Tabuan, October 1, 1899.
- Hartshorne, Benjamin M. J., captain, Seventh Infantry, in action near Lanang, January 2, 1902.
- Hincken, Elias J., second lieutenant, Forty-fourth Infantry, United States Volunteers, in action near Santa Lucia, January 29, 1901.
- Howard, Guy, major, quartermaster, United States Volunteers (captain, quartermaster, U. S. Army), in action at Rio Grande, October 22, 1899.
- Keyes, Maxwell, second lieutenant, Third Infantry, in action at San Ildefonso, November 24, 1899.
- Koehler, Edgar F., first lieutenant, Ninth Infantry, in action at Barrio Tinuba, March 4, 1900.
- Koontz, Howard M., first lieutenant, Forty-fourth Infantry, United States Volunteers, in action at Bugason, October 30, 1900.
- Krayenbuhl, Maurice G., captain, commissary of subsistence, United States Volunteers (first lieutenant, Third Artillery), in action at Maycanayan, March 26, 1899.
- Lawton, Henry W., major-general, United States Volunteers (colonel, Inspector-General's Department), in action at San Mateo, December 19, 1899.
- Ledyard, Augustus C., first lieutenant, Sixth Infantry, in action at La Granja, December 8, 1899.
- Lee, Walter H., second lieutenant, Engineer Corps, in action near Lipa, June 10, 1901.
- Lien, Jonas S., first lieutenant, First South Dakota Volunteer Infantry, in action at Marilao, March 27, 1899.
- Logan, John A., major, Thirty-third Infantry, United States Volunteers, in action at San Jacinto, November 11, 1899.
- McConville, Edward, major, First Idaho Volunteer Infantry, in action at San Pedro Macati, February 5, 1899.
- McTaggart, William A., second lieutenant, Twentieth Kansas Volunteer Infantry, in action at Santo Tomas, May 4, 1899.
- Mitchell, David D., captain, Fifteenth Infantry, in action at Mavitac, September 17, 1900.
- Morrison, John, jr., first lieutenant, Fourth Cavalry, in action Rio Corona, January 18, 1901.

- Morrison, Sidney E., second lieutenant, Second South Dakota Volunteer Infantry, in action at Marilao, March 27, 1899.
- Murphy, William L., captain, Thirty-ninth Infantry, United States Volunteers (first lieutenant, Twenty-fourth Infantry), in action at Barrio Natatas, August 14, 1900.
- Pasco, William D., second lieutenant, Eighteenth Infantry, in action near Cuartero, October 29, 1900.
- Saffold, Marion B., captain, Thirteenth Infantry, in action at Novaleta, October 8, 1899.
- Schenck, William T., first lieutenant, Twenty-fifth Infantry, in action near Castellejos, January 29, 1900.
- Sisson, Lester E., second lieutenant, First Nebraska Volunteer Infantry, in action at Quingua, April 23, 1899.
- Springer, Anton, captain, First Infantry, in action near Lipa, June 10, 1901.
- Stewart, John S., captain, First Colorado Volunteer Infantry, in action at Mariquina road, March 24, 1899.
- Stotsenburg, John M., colonel First Nebraska Volunteer Infantry (captain, Sixth Cavalry), in action at Quingua, April 23, 1899.
- Tilly, George H., captain, signal officer, United States Volunteers, in action at Escalante, May 27, 1899.
- Vicars, Thomas A., first lieutenant, Twenty-seventh Infantry, in action at Bayan, May 2, 1902.
- Wagner, Max, second lieutenant, Twenty-sixth Infantry, United States Volunteers, in action near Pavia, October 1, 1900.
- Warrick, Oliver B., captain, Eighteenth Infantry, in action at Passi, November 26, 1899.
- Way, Henry N., second lieutenant, Fourth Infantry, in action at Villavieja, August 28, 1900.

## DIED OF WOUNDS (17).

- Bentley, George H., captain, Forty-seventh Infantry, United States Volunteers, August 28, 1900, wounded at Cotman, August 21, 1900.
- Crenshaw, Frank F.,<sup>a</sup> captain, Twenty-eighth Infantry, United States Volunteers, August 28, 1900; wounded at Papaya June 5, 1900.
- Diggles, Arthur M., captain, Thirteenth Minnesota Volunteer Infantry, May 26, 1899; wounded at Maasin May 8, 1899.
- Forby, Lee, captain, First Nebraska Volunteer Infantry, March 28, 1899; wounded at San Francisco del Monte March 25, 1899.
- French, Charles, captain, Thirty-sixth Infantry, United States Volunteers, October 31, 1899; wounded at Lubac October 29, 1899.
- Galleher, John B., first lieutenant, Fortieth Infantry, United States Volunteers, February 23, 1900; wounded at Libmanan February 20, 1900.
- Geary, Woodbridge, captain, Thirteenth Infantry, October 11, 1899; wounded at San Francisco de Malabon October 10, 1899.
- Joesman, Albert L., second lieutenant, Twenty-seventh Infantry, July 28, 1902; wounded at Bayan May 2, 1902.
- McGrath, Hugh J., captain, Fourth Cavalry, November 7, 1899; wounded at Noveleta October 8, 1899.
- Mitchell, James, first lieutenant, Fourteenth Infantry, February 6, 1899; wounded at Passay February 5, 1899.
- Ramsay, Charles R., first lieutenant, Twenty-first Infantry, July 13, 1901; wounded near Lipa June 10, 1901.
- Richter, Reinhold,<sup>b</sup> captain, First California Volunteer Infantry, August 4, 1898; wounded near Manila August 1, 1898.
- Smith, Charles M., second lieutenant, Eighteenth Infantry, November 22, 1899; wounded near Ilaya November 21, 1899.
- Smith, Edmund D., captain, Nineteenth Infantry, February 5, 1900; wounded at Fort Amia February 4, 1900.
- Wallace, Robert B.,<sup>a</sup> colonel Thirty-seventh Infantry, United States Volunteers (lieutenant-colonel First Montana Volunteer Infantry; first lieutenant, Second Cavalry), March 13, 1900; wounded at Caloocan February 10, 1899.
- Wilhelm, William H., captain, Twenty-first Infantry, June 12, 1901; wounded near Lipa June 10, 1901.
- Williams, William H.,<sup>a</sup> first lieutenant, Twelfth Infantry, November 25, 1899; wounded at Angeles August 16, 1899.

<sup>a</sup> Died in the United States.<sup>b</sup> Died of wounds during the war with Spain.

## DIED OF DISEASE, ETC. (74).

- Anderson, Robert H., captain, Ninth Infantry, November 7, 1901.  
 Armstrong, Frank C., major, surgeon, Thirty-second Infantry, United States Volunteers, December 4, 1899.  
 Belknap, Hugh R., major, Pay Department, November 12, 1901.  
 Blakeman, Robert, first lieutenant, Forty-ninth Infantry, United States Volunteers, October 3, 1900.  
 Bowman, Daniel T., first lieutenant, Thirty-seventh Infantry, United States Volunteers, January 9, 1900.  
 Brereton, John J., lieutenant-colonel Thirty-third Infantry, United States Volunteers (captain, Twenty-fourth Infantry), December 2, 1899.  
 Carpenter, Charles E., second lieutenant, Eighth Infantry, February 9, 1902.  
 Cilley, Jonathan, first lieutenant, Forty-third Infantry, United States Volunteers, June 13, 1900.  
 Collins, Charles L., captain, Twenty-third Infantry, September 7, 1899.  
 Crawford, Robert T., first lieutenant, First Infantry, October 30, 1901.  
 Danner, James D., second lieutenant, Twenty-eighth Infantry, United States Volunteers, September 27, 1900.  
 Davis, John G., major, surgeon, United States Volunteers, November 1, 1900.  
 Draper, Paul, second lieutenant, Twenty-second Infantry, June 28, 1900.  
 Drennan, James W., major, First-Montana Volunteer Infantry, June 23, 1899.  
 Edmonston, Raphael A., first lieutenant, assistant surgeon Thirty-fourth Infantry, United States Volunteers, June 2, 1900.  
 Fernald, Roy L., second lieutenant, Twenty-sixth Infantry, United States Volunteers, September 1, 1900.  
 Fiscus, William W., jr., first lieutenant, Nineteenth Infantry, January 12, 1902.  
 Foster, Pierce C., second lieutenant, Third Infantry, May 22, 1899.  
 Geiger, William C., captain, Philippine Cavalry (first lieutenant, Fourteenth Infantry), July 2, 1900.  
 Grandy, Luther B., major, surgeon, United States Volunteers, April 12, 1902.  
 Gurowits, Odon, captain, Eleventh Infantry, January 14, 1902.  
 Hall, William R., major, surgeon, U. S. Army, April 2, 1901.  
 Harting, Edwin A., first lieutenant, First South Dakota Volunteer Infantry, February 14, 1899.  
 Hassaurek, Frank, second lieutenant, Seventeenth Infantry, May 19, 1899.  
 Higley, Brainard S., jr., first lieutenant, assistant surgeon, U. S. Army, February 3, 1900.  
 Hollis, Magnus O., captain, Fourth Infantry, November 15, 1899.  
 Huston, Robert B., captain, Forty-seventh Infantry, United States Volunteers, July 6, 1900.  
 Jackson, Frederick C., captain, assistant surgeon, United States Volunteers, September 30, 1902.  
 Jackson, George L., second lieutenant, Forty-seventh Infantry, United States Volunteers, May 21, 1900.  
 Kennedy, John, second lieutenant, signal officer, United States Volunteers, November 24, 1900.  
 Langworthy, Samuel R., captain, Thirty-fifth Infantry, United States Volunteers, February 21, 1900.  
 Lee, Orison P., captain, Forty-fifth Infantry, United States Volunteers, June 10, 1900.  
 Leland, Lewis J., chaplain, First Tennessee Volunteer Infantry, February 28, 1899.  
 Luna, Maximiliano, first lieutenant, Thirty-fourth Infantry, United States Volunteers, November 15, 1899.  
 McClure, Charles, jr., first lieutenant, Thirtieth Infantry, July 1, 1901.  
 McKinnon, William D., chaplain, U. S. Army, September 25, 1902.  
 McQuiston, Charles, captain, Fourth Infantry, September 15, 1900.  
 McVay, Harlan E., captain, assistant surgeon, U. S. Army, January 4, 1899.  
 Meade, Francis K., first lieutenant, Twenty-first Infantry, September 22, 1900.  
 Merchant, Bert H., captain, Fifteenth Infantry, April 2, 1902.  
 Miley, John D., lieutenant-colonel, inspector-general, United States Volunteers (first lieutenant, Second Artillery), September 19, 1899.  
 Monaghan, William, major, quartermaster, United States Volunteers, April 13, 1901.  
 Monday, Oscar C., second lieutenant, Philippine Scouts, July 14, 1902.  
 Moore, John L., first lieutenant, Fifty-first Iowa Volunteer Infantry, July 19, 1899.  
 Morley, Frank A.,<sup>a</sup> first lieutenant, Thirteenth Minnesota Volunteer Infantry, August 30, 1898.

<sup>a</sup> Died during the war with Spain.

- Morse, Joseph B., second lieutenant, Ninth Infantry, August 15, 1899.  
 Mullan, William H., captain, infantry, unassigned, March 23, 1901.  
 Orr, John C., captain, assistant surgeon, United States Volunteers, September 12, 1901.  
 Parker, Montgomery D., captain, Eighth Infantry, December 17, 1900.  
 Pearce, Fred A., second lieutenant, Sixth Artillery, June 6, 1899.  
 Pope, Benjamin F., colonel, Assistant Surgeon-General, U. S. Army, February 14, 1902.  
 Rafferty, William A., colonel Fifth Cavalry, September 13, 1902.  
 Reeder, Odus J., second lieutenant, Philippine Scouts, December 23, 1901.  
 Russell, Charles E., captain, Eighth Infantry, May 26, 1902.  
 Ryan, Thomas, second lieutenant, Philippine Scouts, June 16, 1902.  
 Shollenberger, John H., captain, Tenth Infantry, July 4, 1902.  
 Slack, Walter T., first lieutenant, Forty-seventh Infantry, United States Volunteers, December 25, 1900.  
 Smith, Louis P., first lieutenant, assistant surgeon, U. S. Army, January 8, 1901.  
 Smith, William C., colonel, First Tennessee Volunteer Infantry, February 5, 1899.  
 Spurgin, David G., first lieutenant, Twenty-first Infantry, July 29, 1900.  
 Stuart, Stanley MacC., first lieutenant, assistant surgeon, Eleventh Cavalry, United States Volunteers, November 6, 1900.  
 Taylor, Edward, first lieutenant, Twelfth Infantry, December 26, 1899.  
 Thompson, John P., chaplain, First Washington Volunteer Infantry, February 19, 1899.  
 Toncray, James P., first lieutenant, Thirtieth Infantry, United States Volunteers, February 7, 1900.  
 Waugh, John R., second lieutenant, Thirty-ninth Infantry, United States Volunteers, February 27, 1900.  
 Weber, Louis P., second lieutenant, Forty-second Infantry, United States Volunteers, March 9, 1900.  
 Webster, Horace, first lieutenant, Forty-second Infantry, United States Volunteers, July 7, 1900.  
 Westledge, Richard B., first lieutenant, assistant surgeon, U. S. Army, June 10, 1899.  
 White, Grant A., first lieutenant, Thirty-third Infantry, United States Volunteers, April 10, 1900.  
 Whiteley, Rowland, first lieutenant, Philippine Scouts, June 21, 1902.  
 Whitney, Folliot A., major, Sixth Infantry, August 11, 1900.  
 Williams, James C., second lieutenant, Twelfth Infantry, October 13, 1901.  
 Wing, Eugene G., second lieutenant, Thirty-sixth Infantry, United States Volunteers, January 24, 1900.  
 Wood, Palmer G., second lieutenant, Twelfth Infantry, November 16, 1900.

## MOVEMENT OF TROOPS.

The following is a summary of the movements of troops from and to extra-territorial stations since September 18, 1901:

CUBA.

1902.

*January 18.*—Headquarters and Second Squadron, Second Cavalry, sailed from Havana for New York.

*February 25.*—Headquarters and Third Squadron, Eighth Cavalry, sailed from Nuevitas, en route to Fort Riley, Kans.

*March 6.*—Third Squadron, Eighth Cavalry, arrived at Fort Riley from Cuba.

*April 13.*—Troop C, Seventh Cavalry, sailed from Cuba for the United States.

*April 17.*—Troop D, Seventh Cavalry, sailed from Cuba for the United States.

*April 19.*—Troops A and B, Seventh Cavalry, and Third Field Battery, sailed from Cuba for the United States.

*April 23.*—Troops A, C, L, and M, Tenth Cavalry, sailed from Cuba for the United States.

*April 24.*—Headquarters and First Squadron, Second Cavalry, sailed from Cuba for the United States.

*April 26.*—Troops F and G, Eighth Cavalry, sailed from Cuba for the United States.

*April 30.*—Third Squadron, Second Cavalry, sailed from Cuba for the United States.



May 5.—Troops B, D, I, and K, Tenth Cavalry, sailed from Cuba for the United States.

May 20.—General Wood and staff, headquarters, and Second and Third Squadrons, Seventh Cavalry, and Troops E and H, Eighth Cavalry, sailed from Cuba for the United States.

PORTO RICO.

1902.

April 4.—Steamer *Maricibo* sailed from San Juan, P. R., with Second Battalion, Eleventh Infantry, and arrived at Newport News, Va., April 8.

PHILIPPINE ISLANDS.

1901.

September 26.—Transport *Sheridan* arrived at Manila from San Francisco with 14 officers.

September 29.—Transport *Buford* sailed from Zamboanga, P. I., for New York with headquarters and 8 companies Twenty-third Infantry.

October 1.—Transport *Hancock* sailed from San Francisco for Manila with 18 officers and 142 enlisted men. Maj. R. H. Loughborough, Sixth Infantry, commanding.

October 1.—Transport *Meade* sailed from Manila for San Francisco with the Sixtieth, Sixty-first, Sixty-second, Sixty-third, Sixty-fourth, Sixty-fifth, Sixty-eighth, Seventieth, and Seventy-first Companies, Coast Artillery.

October 10.—Transport *Ingalls* arrived at Manila from New York with 4 officers and 26 enlisted men.

October 12.—Transport *Kilpatrick* arrived at San Francisco from Iloilo with headquarters and 8 companies Eighteenth Infantry.

October 14.—Transport *Sumner* arrived at Manila from San Francisco with 5 officers and 2 Hospital Corps men.

October 16.—Transport *Thomas* sailed from San Francisco for Manila with 17 officers and 19 enlisted men. Capt. W. M. Coulling, quartermaster, U. S. Army, commanding.

October 16.—Transport *Warren* arrived at Manila from San Francisco with 9 officers.

October 16.—Transport *Sheridan* sailed from Manila for San Francisco with short-term enlisted men. Vessel disabled and docked for repairs at Nagasaki, Japan, October 22.

October 18.—Transport *McClellan* sailed from Manila for New York with Companies B, C, and D, Engineers.

October 25.—Transport *Hancock* arrived at Manila from San Francisco with 18 officers and 142 enlisted men.

October 26.—Transport *Warren* sailed from Manila to take the sick from the transport *Sheridan* at Nagasaki, Japan; disabled and returned to Manila.

October 28.—Transport *Meade* arrived at San Francisco from Manila with 9 companies coast artillery.

November 1.—Transport *Kilpatrick* sailed from San Francisco for Manila with 15 officers and 139 enlisted men. First Lieut. M. R. Hilgard, Sixteenth Infantry, commanding.

November 12.—Transport *Thomas* arrived at Manila from San Francisco with 17 officers and 19 enlisted men.

November 15.—Transport *Grant* sailed from San Francisco for Manila with headquarters, First and Third Battalions, Twenty-eighth Infantry, recruits, etc., 25 officers and 946 enlisted men. Col. Mott Hooton, Twenty-eighth Infantry, commanding.

November 16.—Transport *Rosecrans* sailed from Portland, Oreg., for Manila with Second Battalion, Twenty-eighth Infantry, and casuals; 10 officers and 460 enlisted men. Capt. F. E. Bamford, Twenty-eighth Infantry, commanding.

November 16.—Transport *Meade* sailed from San Francisco for Manila with 8 officers and 21 enlisted men. Capt. R. McA. Schofield, quartermaster, U. S. Army, commanding.

November 20.—Transport *Thomas* sailed from Manila for San Francisco with discharged, sick, and short-term service men.

December 1.—Transport *Buford* arrived at New York from Manila with headquarters and 8 companies, Twenty-third Infantry.

December 2.—Transport *Kilpatrick* arrived at Manila from San Francisco with 15 officers and 139 enlisted men.

*December 5.*—Transport *Crook* sailed from New York for Manila with Second Squadron, Eleventh Cavalry; Third Battalion, Twenty-seventh Infantry, and casualties; 29 officers and 784 enlisted men. Lieut. Col. A. G. Hennisee, Eleventh Cavalry, commanding.

*December 7.*—Transport *Sheridan* arrived at San Francisco from Manila with short-term enlisted men.

*December 12.*—Transport *Grant* arrived at Manila from San Francisco with 25 officers and 946 enlisted men.

*December 12.*—Transport *Kilpatrick* sailed from Manila for San Francisco with discharged and short-term enlisted men.

*December 16.*—Transport *Hancock* sailed from San Francisco for Manila with headquarters, Second and Third Squadrons, Fifteenth Cavalry, and recruits; 31 officers and 982 enlisted men. Col. W. M. Wallace, Fifteenth Cavalry, commanding.

*December 19.*—Transport *Meade* arrived at Manila from San Francisco with 8 officers and 21 enlisted men.

*December 19.*—Transport *Thomas* arrived at San Francisco from Manila with discharged, sick, and short-term enlisted men.

*December 22.*—Transport *Rosecrans* arrived at Manila from Portland, Oreg., with 10 officers and 460 enlisted men.

*December 23.*—Transport *McClellan* arrived at New York from Manila with Companies B, C, and D, Engineers.

*December 24.*—Transport *Grant* sailed from Manila for San Francisco with the Fourth Infantry.

1902.

*January 1.*—Transport *Sheridan* sailed from San Francisco for Manila with headquarters and First Squadron, Eleventh Cavalry; headquarters and First Battalion, Twenty-seventh Infantry, recruits, etc.; 45 officers and 1,502 enlisted men. Col. F. D. Baldwin, Twenty-seventh Infantry, commanding.

*January 9.*—Transport *Kilpatrick* arrived at San Francisco from Manila with discharged and short-term enlisted men.

*January 11.*—Transport *Hancock* arrived at Manila from San Francisco with 31 officers and 982 enlisted men.

*January 16.*—Transport *Kilpatrick* sailed from San Francisco for Manila with recruits, etc. Capt. J. A. Penn, Seventh Infantry, commanding.

*January 21.*—Transport *Buford* sailed from New York for Manila with headquarters and Third Squadron, Eleventh Cavalry; Second Battalion, Twenty-seventh Infantry; casualties, 44 officers and 798 men. Col. F. Moore, Eleventh Cavalry, commanding.

*January 21.*—Transport *Grant* arrived at San Francisco from Manila with the Fourth Infantry.

*January 24.*—Transport *Rosecrans* sailed from Manila for San Francisco with the Third Battalion, Twenty-second Infantry.

*January 26.*—Transport *Sheridan* arrived at Manila from San Francisco with 45 officers and 1,502 enlisted men.

*February 1.*—Transport *Thomas* sailed from San Francisco for Manila with 22 officers and 1,513 recruits, etc. Maj. W. Paulding, Third Infantry, commanding.

*February 1.*—Transport *Hancock* sailed from Manila for San Francisco with headquarters, First and Second Battalions, Twenty-second Infantry.

*February 3.*—Transport *Crook* arrived at Manila from New York with 29 officers and 784 enlisted men.

*February 8.*—Transport *Grant* sailed from San Francisco for Manila with 10 officers and 320 recruits, etc. Lieut. Col. C. H. Noble, Sixteenth Infantry, commanding.

*February 16.*—Transport *Warren* sailed from San Francisco for Manila with Second Battalion, Fifteenth Infantry, and recruits—13 officers and 783 enlisted men. Capt. S. W. Dunning, Fifteenth Infantry, commanding.

*February 16.*—Transport *Sheridan* sailed from Manila for San Francisco with headquarters, First and Third Battalions, Twentieth Infantry.

*February 17.*—Transport *Kilpatrick* arrived at Manila from San Francisco with recruits, etc.

*February 18.*—Transport *Egbert* sailed from Manila for San Francisco with Second Battalion, Twentieth Infantry.

*February 25.*—Transport *Rosecrans* arrived at San Francisco from Manila with the Third Battalion, Twenty-second Infantry.

*February 25.*—Transport *Hancock* arrived at San Francisco from Manila with headquarters, First and Second Battalions, Twenty-second Infantry.

*March 1.*—Transport *Meade* sailed from San Francisco for Manila with 13 officers and 794 recruits, etc., but returned to port March 3 on account of sickness aboard.

*March 1.*—Transport *Kilpatrick* sailed from Manila for San Francisco with headquarters and Second Battalion, Seventeenth Infantry.

*March 3.*—Transport *Thomas* arrived at Manila from San Francisco with 22 officers and 1,515 recruits, etc.

*March 6.*—Transport *Crook* sailed from Manila for San Francisco with Companies B, I, K, and M, Seventeenth Infantry.

*March 10.*—Transport *Grant* arrived at Manila from San Francisco with 10 officers and 320 recruits.

*March 13.*—Transport *Sheridan* arrived at San Francisco from Manila with headquarters, First and Third Battalions, Twentieth Infantry.

*March 15.*—Transport *Hancock* sailed from San Francisco for Manila with headquarters and Second Battalion, Tenth Infantry; recruits, etc.; 23 officers and 812 enlisted men. Col. S. H. Lincoln, Tenth Infantry, commanding.

*March 18.*—Transport *Thomas* sailed from Manila for San Francisco with the Twenty-third Infantry.

*March 19.*—Transport *Meade* sailed from San Francisco for Manila with 15 officers and 752 recruits, etc. Lieut. Col. P. H. Ray, Seventh Infantry, commanding.

*March 21.*—Transport *Buford* arrived at Manila from New York with headquarters, Third Squadron, Eleventh Cavalry, and the Second Battalion, Twenty-seventh Infantry.

*March 27.*—Transport *Egbert* arrived at San Francisco from Manila with Second Battalion, Twentieth Infantry.

*March 31.*—Transport *Kilpatrick* arrived at San Francisco from Manila with headquarters and Second Battalion, Seventeenth Infantry.

*March 31.*—Transport *Grant* sailed from Manila for San Francisco with the Twelfth Infantry.

*April 1.*—Transport *Sheridan* sailed from San Francisco for Manila with the Twenty-ninth Infantry, recruits, etc.; 48 officers and 1,652 enlisted men; also 7 officers and 149 men, Marine Corps. Lieut. Col. T. F. Forbes, Twenty-ninth Infantry, commanding.

*April 2.*—Transport *Crook* arrived at San Francisco from Manila with Companies B, I, K, and M, Seventeenth Infantry.

*April 2.*—Transport *Warren* arrived at Manila from San Francisco with Second Battalion, Fifteenth Infantry, recruits, etc.

*April 12.*—Transport *Kilpatrick* sailed from San Francisco for Manila with 15 officers and 127 enlisted men. Maj. Z. W. Torrey, Twenty-fourth Infantry, commanding.

*April 13.*—Transport *Hancock* arrived at Manila from San Francisco with headquarters and Second Battalion, Tenth Infantry.

*April 15.*—Transport *Thomas* arrived at San Francisco from Manila with the Third Infantry.

*April 16.*—Transport *Sherman* sailed from San Francisco for Manila with First Battalion, Second Infantry, recruits, etc.—51 officers and 514 enlisted men—also 6 officers and 100 men, Marine Corps; Capt. T. H. Wilson, Second Infantry, commanding.

*April 21.*—Transport *Meade* arrived at Manila from San Francisco with 15 officers and 752 recruits.

*April 21.*—Transport *Crook* sailed from San Francisco for Manila with Second Battalion, Eleventh Infantry, recruits, etc.—22 officers and 454 enlisted men—Maj. J. B. Jackson, Eleventh Infantry, commanding.

*April 22.*—Transport *Buford* sailed from Manila for San Francisco with headquarters and Troops E and F, Third Cavalry.

*April 26.*—Transport *Grant* arrived at San Francisco from Manila with the Twelfth Infantry.

*May 1.*—Transport *Sheridan* arrived at Manila from San Francisco with the Twenty-ninth Infantry.

*May 1.*—Transport *Logan* sailed from San Francisco for Manila with 41 officers and 83 enlisted men, First Lieut. H. Olin, Thirtieth Infantry, commanding.

*May 6.*—Transport *Meade* sailed from Batangas for San Francisco with the Twenty-first Infantry.

*May 11.*—Transport *Kilpatrick* arrived at Manila from San Francisco with 15 officers and 127 recruits.

*May 12.*—Transport *Sherman* arrived at Manila from San Francisco with the First Battalion, Second Infantry, recruits, etc.

*May 14.*—Transport *Warren* sailed from Manila for San Francisco with Company I, Ninth Infantry.

*May 16.*—Transport *Thomas* sailed from San Francisco for Manila with 13 officers and 92 enlisted men, Capt. J. Howard, Nineteenth Infantry, commanding.

*May 20.*—Transport *Crook* arrived at Manila from San Francisco with the Second Battalion, Eleventh Infantry, recruits, etc.

*May 21.*—Transport *Kilpatrick* sailed from Manila for San Francisco with Troops G and H, Third Cavalry, casuals, and marines.

*May 23.*—Transport *Buford* arrived at San Francisco from Manila with headquarters and Troops E and F, Third Cavalry.

*May 26.*—Transport *Logan* arrived at Manila from San Francisco with 41 officers and 83 recruits.

*May 27.*—Transport *Hancock* sailed from Manila for San Francisco with headquarters and 10 companies, Ninth Infantry.

*May 28.*—Transport *Sherman* sailed from Manila for San Francisco with Generals Wheaton, Snyder, and the Sixth and Nineteenth Infantry.

*June 1.*—Transport *Meade* arrived at San Francisco from Manila with the Twenty-first Infantry.

*June 2.*—Transport *Buford* sailed from San Francisco for Manila with 13 officers and 70 recruits, casuals, etc. Capt. E. C. Carey, Thirtieth Infantry, commanding.

*June 9.*—Transport *Thomas* arrived at Manila from San Francisco with 13 officers and 92 recruits, etc.

*June 12.*—Transport *Warren* arrived at San Francisco from Manila with Company I, Ninth Infantry.

*June 12.*—Transport *Logan* sailed from Aparri for San Francisco with Companies C, D, H, and M, Seventh Infantry, and A, C, D, E, F, I, K, and L, Sixteenth Infantry.

*June 16.*—Transport *Meade* sailed from San Francisco for Manila with 5 officers and 84 enlisted men. Second Lieut. W. J. O'Loughlin, Second Infantry, commanding.

*June 19.*—Transport *Kilpatrick* arrived at San Francisco from Manila with Troops G and H, Third Cavalry, casuals, and marines.

*June 20.*—Transport *Hancock* arrived at San Francisco from Manila with 10 companies Ninth Infantry.

*June 21.*—Transport *Sherman* arrived at San Francisco from Manila with the Sixth and Nineteenth Infantry.

*June 22.*—Transport *Sheridan* sailed from Manila for San Francisco with the Thirteenth Infantry and the First Squadron, Third Cavalry.

*June 25.*—Transport *Sumner* sailed from Manila for San Francisco with Companies A, C, D, and L, Seventeenth Infantry, and Companies C, D, K, and M, Twenty-fourth Infantry.

*July 1.*—Transport *Kilpatrick* sailed from San Francisco for Manila with the Second Squadron, Fifth Cavalry, and men of the Hospital Corps; 17 officers and 350 enlisted men. Col. C. G. Penney, Twenty-ninth Infantry, commanding.

*July 4.*—Transport *Buford* arrived at Manila from San Francisco with 13 officers and 70 enlisted men.

*July 6.*—Transport *Thomas* sailed from Manila for San Francisco with the Second Squadron, Tenth Cavalry; headquarters and Companies A, B, E, F, G, H, and I, Twenty-fourth Infantry, and the First Battalion, Twenty-fifth Infantry.

*July 8.*—Transport *Logan* arrived at San Francisco from Manila with 4 companies Seventh Infantry and 8 companies Tenth Infantry.

*July 11.*—Transport *Lawton* sailed from Aparri for San Francisco with Third Squadron, Third Cavalry, and Companies B, G, H, and M, Sixteenth Infantry.

*July 16.*—Transport *Meade* arrived at Manila from San Francisco with 5 officers and 84 enlisted men.

*July 16.*—Transport *Sherman* sailed from San Francisco for Manila with 16 officers and 84 recruits and casuals. Lieut. Col. S. R. Whitall, Twenty-seventh Infantry, commanding.

*July 17.*—Transport *Crook* sailed from Manila for San Francisco with headquarters and Companies E, F, H, I, K, L, and M, Twenty-fifth Infantry.

*July 19.*—Transport *Sheridan* arrived at San Francisco from Manila with the First Squadron, Third Cavalry, and the Thirteenth Infantry.

*July 22.*—Transport *Sumner* arrived at San Francisco from Manila with 4 companies Seventeenth Infantry and 4 companies Twenty-fourth Infantry.

*July 23.*—Transport *Kilpatrick* arrived at Manila from San Francisco with the Second Squadron, Fifth Cavalry, and Hospital Corps men.

*July 29.*—Transport *Buford* sailed from Manila for San Francisco with headquarters Second and Third Battalions, Eighth Infantry; Companies E and F, Fifteenth Infantry, and Company G, Twenty-fifth Infantry. Col. W. E. Dougherty, Eighth Infantry, commanding.

*August 1.*—Transport *Thomas* arrived at San Francisco from Manila with headquarters and 7 companies Twenty-fourth Infantry, First Battalion, Twenty-fifth Infantry, and the Second Squadron, Tenth Cavalry.

August 8.—Transport *Meade* sailed from Manila for San Francisco with headquarters and Companies A, B, C, D, G, H, I, K, L, and M, Fifteenth Infantry, 35 officers and 870 men. Col. H. C. Ward, Fifteenth Infantry, commanding.

August 12.—Transport *Lauton* arrived at San Francisco from Manila with 4 companies Sixteenth Infantry and Third Squadron, Third Cavalry.

August 13.—Transport *Crook* arrived at San Francisco from Manila with headquarters and 7 companies Twenty-fifth Infantry.

August 17.—Transport *Kilpatrick* sailed from Manila for San Francisco with 34 officers and 318 enlisted men.

September 1.—Transport *Sheridan* sailed from San Francisco for Manila with 18 officers and 61 enlisted men—Hospital Corps, recruits, and casuals.

September 4.—Transport *Sherman* sailed from Manila for San Francisco with 45 officers and 273 sick, casuals, and discharged, enlisted men; detained at Nagasaki, Japan, until September 20 on account of sickness aboard.

September 6.—Transport *Buford* arrived at San Francisco from Manila, with headquarters, Second and Third Battalions, Eighth Infantry; Companies E and F, Fifteenth Infantry, and Company G, Twenty-fifth Infantry.

September 11.—Transport *Meade* arrived at San Francisco with headquarters and 10 companies, Fifteenth Infantry.

September 14.—Transport *Kilpatrick* arrived at San Francisco from Manila with 34 officers and 318 sick, discharged, and short-term, enlisted men.

September 16.—Transport *Crook* sailed from San Francisco for Manila with 15 officers and 20 enlisted men.

September 16.—Transport *Logan* sailed from Manila for San Francisco with headquarters and Troops F, G, H, K, L, and M, Ninth Cavalry—19 officers and 569 enlisted men—Brigadier-General Grant and 21 officers, 3 contract surgeons, and 360 Hospital Corps, sick, etc., enlisted men.

September 20.—Transport *Sherman* sailed from Nagasaki, Japan, for San Francisco (For troops on board, see entry of September 4.)

October 1.—Transport *Thomas* sailed from San Francisco for Manila, via Honolulu and Guam, with Lieutenant-General Miles and 24 officers, 1 dental surgeon, 27 Hospital Corps men, 4 Signal Corps men, and 29 casuals.

October 6.—Transport *Sheridan* sailed from Manila for San Francisco with Troops A, B, C, D, E, and I, Ninth Cavalry—503 enlisted men—432 casuals, sick, etc., enlisted men.

October 13.—Transport *Logan* arrived at San Francisco from Manila with headquarters and 6 troops, Ninth Cavalry; Brigadier-General Grant and 21 officers, 3 contract surgeons, and 360 Hospital Corps, sick, etc., enlisted men.

The insular service of all the organizations of the Army in Cuba, Porto Rico, and the Philippines, from June, 1898, to October 1, 1902, with dates of departure from, and return to, the United States, is shown in the following table:

Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>First Battalion Engineers.</i>							
Company A.					June 25, '98	Aug. 18, '01	1 2
Company B.					July 23, '98	Dec. 25, '01	2 5
Company C.	June 14, '98	Aug. 25, '98			Aug. 1, '00	do	1 7
Company D.					Feb. 26, '01	do	10
<i>Second Battalion Engineers.</i>							
Company E.	June 15, '98	Aug. 25, '98			June 25, '01		1 6
Company F.					do		1 3
Company G.					do		1 3
Company H.					do		1 3
<i>First Cavalry.</i>							
Headquarters.	June 15, '98	Aug. 25, '98			Aug. 7, '00		2 4
Troop A.	do	do			do		2 4
Troop B.	do	do			do		2 4
Troop C.	do	do			do		2 4
Troop D.	do	do			do		2 4
Troop E.	do	do			do	Aug. 18, '01	2 4

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Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>First Cavalry—Con.</i>							
Troop F					Aug. 16, 02		1
Troop G	June 14, 98	Aug. 15, 98			do		4
Troop H					do		1
Troop I	June 14, 98	Aug. 15, 98			Aug. 7, 00		2
Troop K	do	do			do		4
Troop L					do		2
Troop M					do		2
<i>Second Cavalry.</i>							
Headquarters	Feb. 16, 99	Apr. 28, 02					3
Troop A	June 14, 98	Aug. 28, 98					3
	Feb. 3, 99	Apr. 28, 02					5
Troop B	Feb. 16, 99	do	July 23, 98	Dec. 1, 98			3
Troop C	June 14, 98	Aug. 28, 98					7
	Feb. 3, 99	Apr. 28, 02					5
Troop D	June 14, 98	Aug. 28, 98					3
	Feb. 3, 99	Apr. 28, 02					5
Troop E	Feb. 16, 99	Jan. 22, 02					2
Troop F	June 14, 98	Aug. 28, 98					11
	Feb. 3, 99	Jan. 22, 02					2
Troop G	do	do					3
Troop H	Feb. 16, 99	do					0
Troop I	do	May 9, 02					2
Troop K	do	do					11
Troop L	do	do					3
Troop M	Feb. 3, 99	do					3
<i>Third Cavalry.</i>							
Headquarters	June 14, 98	Aug. 14, 98			Aug. 25, 99	May 23, 02	2
Troop A					do	July 19, 02	11
Troop B	June 14, 98	Aug. 13, 98			Aug. 1, 00	do	2
Troop C	do	Aug. 14, 98			Aug. 25, 99	do	2
Troop D					do	do	3
Troop E	June 14, 98	Aug. 14, 98			do	May 23, 02	11
Troop F	do	do			do	do	11
Troop G	do	Aug. 13, 98			Aug. 1, 00	June 19, 02	2
Troop H	do	do			do	do	1
Troop I	do	do			do	Aug. 12, 02	2
Troop K	do	Aug. 14, 98			Aug. 25, 99	do	2
Troop L	do	do			do	do	2
Troop M	do	do			do	do	2
<i>Fourth Cavalry.</i>							
Headquarters					June 28, 99	Aug. 28, 01	2
Troop A					June 24, 99	do	2
Troop B					June 28, 99	Sept. 18, 01	3
Troop C					July 15, 98	Aug. 28, 01	1
Troop D					July 13, 99	do	2
Troop E					July 15, 98	do	1
Troop F					June 24, 99	do	2
Troop G					July 15, 98	do	1
Troop H					July 13, 99	do	2
Troop I					July 15, 98	do	1
Troop K					do	do	1
Troop L					do	do	1
Troop M					June 28, 99	do	2
<i>Fifth Cavalry.</i>							
Headquarters			Nov. 9, 98	Aug. 11, 00	Mar. 18, 01		3
Troop A			July 25, 98	Mar. 29, 00	do		2
Troop B			Nov. 9, 98	do	do		11
Troop C			Feb. 1, 99	do	do		8
Troop D			Nov. 9, 98	do	do		11
Troop E			do	Dec. 4, 00	July 1, 02		4
Troop F			Feb. 1, 99	Dec. 21, 00	do		2
Troop G			Nov. 9, 98	Dec. 4, 00	do		4
Troop H			Feb. 1, 99	Dec. 21, 00	do		2
Troop I			do	Aug. 11, 00	Mar. 18, 01		1
Troop K			Nov. 9, 98	do	do		4
Troop L			do	do	do		4
Troop M			Feb. 1, 99	do	do		1
<i>Sixth Cavalry.</i>							
Headquarters	June 14, 98	Aug. 13, 98			July 3, 00		2
Troop A	do	do			do		5
Troop B	do	do			do		5

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Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Sixth Cavalry—Con.</i>							
Troop C	June 14, 98	Aug. 13, 98			July 3, 00		Yrs. M.
Troop D	do	do			do		2 5
Troop E	do	do			Mar. 25, 01		1 8
Troop F	do	do			do		1 8
Troop G	do	do			do		1 8
Troop H			July 28, 98	Dec. 1, 98	do		1 10
Troop I					July 3, 00		2 3
Troop K	June 14, 98	Aug. 13, 98			do		2 5
Troop L					do		2 5
Troop M					do		2 5
<i>Seventh Cavalry.</i>							
Headquarters	Jan. 13, 99	May 22, 02					3 4
Troop A	do	Apr. 22, 02					3 3
Troop B	do	do					3 3
Troop C	do	Apr. 17, 02					3 3
Troop D	do	Apr. 21, 02					3 3
Troop E	do	May 22, 02					3 4
Troop F	do	do					3 4
Troop G	do	do					3 4
Troop H	do	do					3 4
Troop I	do	do					3 4
Troop K	do	do					3 4
Troop L	do	do					3 4
Troop M	do	do					3 4
<i>Eighth Cavalry.</i>							
Headquarters	Nov. 13, 98	Mar. 2, 02					3 4
Troop A	do	Jan. 25, 00					1 2
Troop B	do	do					1 2
Troop C	do	do					1 2
Troop D	Jan. 31, 99	do					1 4
Troop E	do	May 26, 02					3 4
Troop F	do	Apr. 30, 02					3 3
Troop G	Nov. 13, 98	do					3 5
Troop H	Jan. 31, 99	May 26, 02					3 4
Troop I	Nov. 13, 98	Mar. 2, 02					3 4
Troop K	Jan. 31, 99	do					3 1
Troop L	do	do					3 1
Troop M	Nov. 13, 98	do					3 4
<i>Ninth Cavalry.<sup>a</sup></i>							
Headquarters	June 14, 98	Aug. 20, 98			Aug. 16, 00		2 4
Troop A	do	do			do		2 4
Troop B	do	do			do		2 4
Troop C	do	do			do		2 4
Troop D	do	do			do		2 4
Troop E	do	do			do		2 4
Troop F	do	do			do		2 2
Troop G	June 14, 98	Aug. 20, 98			do		2 4
Troop H	do	do			do		2 4
Troop I					Apr. 15, 01		1 6
Troop K	June 14, 98	Aug. 20, 98			do		1 8
Troop L					do		1 6
Troop M					do		1 6
<i>Tenth Cavalry.</i>							
Headquarters	June 14, 98	Aug. 20, 98					3 2
	May 1, 99	Apr. 30, 02					
Troop A	June 14, 98	Aug. 20, 98					3 2
	May 1, 99	Apr. 30, 02					
Troop B	June 14, 98	Aug. 20, 98					3 2
	May 17, 99	May 12, 02					
Troop C	June 14, 98	Aug. 20, 98					3 2
	May 1, 99	Apr. 30, 02					
Troop D	June 14, 98	Aug. 20, 98					3 2
	May 17, 99	May 12, 02					
Troop E	June 14, 98	Aug. 20, 98			Apr. 15, 01	Aug. 1, 02	2 2
	May 17, 99	Jan. 10, 00					
Troop F	June 14, 98	Aug. 20, 98			Apr. 15, 01	Aug. 1, 02	2 2
	May 17, 99	Jan. 10, 00					
Troop G	June 14, 98	Aug. 20, 98			Apr. 15, 01	Aug. 1, 02	2 2
	May 1, 99	Jan. 10, 00					
Troop H	do	do			Apr. 15, 01	Aug. 1, 02	2 0

<sup>a</sup>The headquarters and F, G, H, K, L, and M, Ninth Cavalry, arrived at San Francisco from Manila October 13, 1902. The remaining six troops of the regiment sailed from Manila for San Francisco October 4, and are expected to arrive there about November 1, 1902.

Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Tenth Cavalry—Continued.</i>							
Troop I.....	June 14, 98	Aug. 20, 98					Yrs. M: 3 2
Troop K.....	May 17, 99	May 12, 02					3 0
Troop L.....	May 1, 99	Apr. 30, 02					3 0
Troop M.....	do	do					3 0
<i>Eleventh Cavalry.</i>							
Headquarters.....					Jan. 21, 02		8
Troop A.....					Jan. 1, 02		9
Troop B.....					do		9
Troop C.....					do		9
Troop D.....					do		9
Troop E.....					Dec. 5, 01		10
Troop F.....					do		10
Troop G.....					do		10
Troop H.....					do		10
Troop I.....					Jan. 21, 02		8
Troop K.....					do		8
Troop L.....					do		8
Troop M.....					do		8
<i>Fifteenth Cavalry.</i>							
Headquarters.....					Dec. 16, 01		10
Troop A.....					Mar. 18, 01		1 6
Troop B.....					do		1 6
Troop C.....					Apr. 1, 01		1 6
Troop D.....					do		1 6
Troop E.....					Dec. 16, 01		10
Troop F.....					do		10
Troop G.....					Apr. 5, 01		1 6
Troop H.....					Dec. 16, 01		10
Troop I.....					do		10
Troop K.....					do		10
Troop L.....					do		10
Troop M.....					do		10
<i>Artillery Corps, Field Batteries.</i>							
1st Battery.....	June 14, 98	Aug. 25, 98			Apr. 18, 99	July 16, 01	2 5
2d Battery.....	do	Aug. 30, 98					3 3
3d Battery.....	do	do					3 6
4th Battery.....	Jan. 21, 99	Apr. 22, 02					1 9
	June 14, 98	Aug. 23, 98					
	Jan. 21, 99	Aug. 12, 00					
5th Battery.....			July 3, 98	Dec. 1, 98			5
6th Battery.....			do	do			5
7th Battery.....			do	do			5
8th Battery.....	July 3, 98	Aug. 30, 98			Apr. 20, 99	July 28, 01	2 5
9th Battery.....			July 3, 98	Dec. 1, 98			5
10th Battery.....	July 3, 98	Aug. 30, 98			Apr. 20, 99	June 29, 01	2 4
12th Battery.....					July 14, 98	Sept. 18, 01	3 2
13th Battery.....					July 20, 98	do	3 2
14th Battery.....			July 23, 98	June 27, 99	Sept. 3, 00		3 0
15th Battery.....			do	do	do		3 0
25th Battery <sup>a</sup> .....					Sept. 26, 01		1 0
<i>Artillery Corps, Coast.</i>							
13th Company.....	Dec. 29, 98	Oct. 18, 99					10
14th Company.....	do	do					10
15th Company.....	Jan. 21, 99	do					9
16th Company.....	Dec. 29, 98	do					10
17th Company.....	Jan. 21, 99						3 8
18th Company.....	Jan. 11, 99						3 9
19th Company.....	do						3 9
20th Company.....	Dec. 29, 98						3 9
21st Company.....	do						3 9
22d Company.....	do						3 9
23d Company.....	Oct. 22, 99						2 11
24th Company.....	do						2 11
25th Company.....					July 29, 00		2 2
27th Company.....					do		2 2
29th Company.....					June 27, 98	July 16, 01	3 1
30th Company.....					June 29, 98	do	3 1
31st Company.....					July 29, 00		2 2

<sup>a</sup> Organized in Philippine Islands.



Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Artillery Corps, Coast—Cont'd.</i>							<i>Yrs. M.</i>
32d Company					June 29, 98	July 16, 01	3 1
33d Company					June 27, 98	do	3 1
36th Company					July 29, 00		2 2
41st Company	June 14, 98	Aug. 22, 98					2 2
42d Company	do	Aug. 15, 98					2 2
50th Company			July 16, 98	June 27, 99			1 11
52d Company			Mar. 1, 99	Dec. 3, 00			1 9
53d Company			Aug. 3, 98	do			2 4
56th Company			Nov. 14, 00				1 11
59th Company			do				1 11
60th Company					Nov. 29, 99	Oct. 28, 01	1 11
61st Company					Apr. 20, 99	do	2 6
62d Company					do	do	2 6
63d Company					do	do	2 6
64th Company					do	do	2 6
65th Company					do	do	2 6
68th Company					do	do	2 6
69th Company					do	June 9, 00	1 2
70th Company <sup>a</sup>					Nov. 29, 99	Oct. 28, 01	1 11
71st Company					Apr. 20, 99	do	2 6
<i>First Infantry.</i>							
Headquarters	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 11
	Dec. 30, 98	Aug. 12, 00					
Company A	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 0
	Dec. 30, 98	Sept. 19, 99					
Company B	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 0
	Dec. 29, 98	Sept. 19, 99					
Company C	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 0
	Jan. 8, 99	Sept. 19, 99					
Company D	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 0
	Dec. 30, 98	Sept. 19, 99					
Company E	May 10, 98	May 16, 98			Sept. 1, 00		3 10
	June 14, 98	Aug. 28, 98					
Company F	Jan. 8, 99	Aug. 12, 00			Sept. 1, 00		3 10
	June 14, 98	Aug. 28, 98					
Company G	Dec. 30, 98	Aug. 12, 00			Sept. 1, 00		3 10
	May 10, 98	May 16, 98					
Company H	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 10
	Jan. 8, 99	Aug. 12, 00					
Company I	June 14, 98	Aug. 28, 98			Sept. 1, 00		3 10
	Dec. 29, 98	Aug. 12, 00					
Company J	do	Sept. 6, 00			Apr. 15, 01		3 2
Company K	Jan. 8, 99	Aug. 7, 00			Apr. 5, 01		3 1
Company L	Dec. 30, 98	do			do		3 1
Company M	Dec. 29, 98	do			Apr. 15, 01		3 1
<i>Second Infantry.</i>							
Headquarters	June 14, 98	Aug. 15, 98			Sept. 1, 00		3 6
	Apr. 12, 99	July 24, 00					
Company A	June 14, 98	Aug. 15, 98			Apr. 16, 02		1 11
	Apr. 12, 99	July 24, 00					
Company B	June 14, 98	Aug. 15, 98			Apr. 16, 02		1 11
	Apr. 12, 99	July 24, 00					
Company C	June 14, 98	Aug. 15, 98			Apr. 16, 02		1 11
	Apr. 12, 99	July 24, 00					
Company D	June 14, 98	Aug. 15, 98			Apr. 16, 02		1 11
	Apr. 12, 99	July 24, 00					
Company E	June 14, 98	Aug. 15, 98			Aug. 21, 00		2 9
	Apr. 12, 99	Sept. 25, 99					
Company F	June 14, 98	Aug. 15, 98			Aug. 21, 00		2 9
	Apr. 12, 99	Sept. 25, 99					
Company G	June 14, 98	Aug. 15, 98			Aug. 21, 00		2 9
	Apr. 12, 99	Sept. 25, 99					
Company H	June 14, 98	Aug. 15, 98			Aug. 21, 00		2 9
	Apr. 12, 99	Sept. 25, 99					
Company I	May 25, 99	July 24, 00			Sept. 1, 00		3 3
Company K	do	do			do		3 3
Company L	do	do			do		3 3
Company M	do	do			do		3 3
<i>Third Infantry.</i>							
Headquarters	June 14, 98	Aug. 25, 98			Feb. 3, 99	Apr. 15, 02	3 5
Company A	do	do			do	do	3 5
Company B	do	do			do	do	3 5
Company C	do	do			do	do	3 5
Company D	do	do			do	do	3 5
Company E	do	do			do	do	3 5

<sup>a</sup>The 66th and 70th Companies, Coast Artillery, served at Honolulu April 12 to November 29, 1899. The 66th and 67th Companies, Coast Artillery, have been stationed in Honolulu since April 12, 1899.

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Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Third Infantry—Continued.</i>							
Company F.....	June 14, 98	Aug. 25, 98			Feb. 3, 99	Apr. 15, 02	Yrs. M.
Company G.....	do	do			do	do	3 5
Company H.....	do	do			do	do	3 5
Company I.....					do	do	3 2
Company K.....					do	do	3 2
Company L.....					do	do	3 2
Company M.....					do	do	3 2
<i>Fourth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 19, 98			Jan. 19, 99	Jan. 21, 02	3 2
Company A.....	do	do			do	do	3 2
Company B.....	do	do			do	do	3 2
Company C.....	do	do			do	do	3 2
Company D.....	do	do			do	do	3 2
Company E.....	do	do			do	do	3 2
Company F.....	do	do			do	do	3 2
Company G.....	do	do			do	do	3 2
Company H.....	do	do			do	do	3 2
Company I.....					do	do	3 0
Company K.....					do	do	3 0
Company L.....					do	do	3 0
Company M.....					do	do	3 0
<i>Fifth Infantry.</i>							
Headquarters.....	Aug. 21, 98	July 25, 00			Sept. 18, 00		4 0
Company A.....	do	do			do		4 0
Company B.....	do	Aug. 9, 00			do		4 0
Company C.....	do	July 25, 00			do		4 0
Company D.....	do	Aug. 9, 00			do		4 0
Company E.....	do	do			do		3 6
Company F.....	do	July 25, 00			Apr. 1, 01		3 5
Company G.....	do	do			do		3 5
Company H.....	do	Aug. 9, 00			do		3 6
Company I.....	do	Sept. 27, 99			do		3 3
Company K.....	do	do			Aug. 21, 00		3 3
Company L.....	do	do			do		3 3
Company M.....	do	do			do		3 3
<i>Sixth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 14, 98			May 22, 99	June 21, 02	3 3
Company A.....	do	do			do	do	3 3
Company B.....	do	do			do	do	3 3
Company C.....	do	do			do	do	3 3
Company D.....	do	do			do	do	3 3
Company E.....	do	do			do	do	3 3
Company F.....	do	do			do	do	3 3
Company G.....	do	do			do	do	3 3
Company H.....	do	do			do	do	3 3
Company I.....					do	do	3 1
Company K.....					do	do	3 1
Company L.....					do	do	3 1
Company M.....					do	do	3 1
<i>Seventh Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 27, 98					2
Company A.....	do	do					2
Company B.....	do	do					2
Company C.....	do	do			Mar. 25, 01	July 8, 02	1 6
Company D.....	do	do			do	do	1 6
Company E.....	do	do					2
Company F.....	do	do					2
Company G.....	do	do					2
Company H.....	do	do			Mar. 25, 01	July 8, 02	1 6
Company I.....	do	do					2
Company K.....							
Company L.....							
Company M.....					Mar. 25, 01	July 8, 02	1 3
<i>Eighth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 20, 98			Sept. 18, 00	Sept. 6, 02	3 9
Company A.....	Dec. 13, 98	July 24, 00					1 10
Company B.....	June 14, 98	Aug. 20, 98					1 10
	Dec. 13, 98	July 24, 00					
Company B.....	June 14, 98	Aug. 20, 98					1 10
	Dec. 13, 98	July 24, 00					

Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Eighth Infantry—Continued.</i>							<i>Yrs. M.</i>
Company C.....	June 14, 98	Aug. 20, 98					1 10
	Dec. 13, 98	July 24, 00					
Company D.....	June 14, 98	Aug. 20, 98					1 10
	Dec. 13, 98	July 24, 00					
Company E.....	June 14, 98	Aug. 20, 98			Sept. 18, 00	Sept. 6, 02	3 9
	Dec. 13, 98	July 21, 00					
Company F.....			July 28, 98	Dec. 1, 98	Sept. 18, 00	Sept. 6, 02	3 11
	Dec. 13, 98	July 21, 00					
Company G.....	June 14, 98	Aug. 20, 98			Sept. 18, 00	Sept. 6, 02	3 9
	Dec. 13, 98	July 24, 00					
Company H.....	June 14, 98	Aug. 20, 98			Sept. 18, 00	Sept. 6, 02	3 9
	Dec. 13, 98	July 24, 00					
Company I.....	do	Sept. 19, 99			Aug. 21, 00	Sept. 6, 02	2 10
Company K.....	do	do			do	do	2 10
Company L.....	do	do			do	do	2 10
Company M.....	do	do			do	do	2 10
<i>Ninth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 14, 98			Mar. 24, 99	June 20, 02	3 5
Company A.....	do	do			do	do	3 5
Company B <sup>a</sup> .....	do	do			Mar. 28, 99	do	3 8
Company C.....	do	do			do	June 20, 02	3 5
Company D.....	do	do			do	do	3 5
Company E.....	do	do			do	do	3 5
Company F.....	do	do			Mar. 24, 99	do	3 5
Company G.....	do	do			do	do	3 5
Company H.....	do	do			Mar. 28, 99	do	3 5
Company I.....	do	do			Mar. 24, 99	June 12, 02	3 3
Company K.....	do	do			Mar. 28, 99	June 20, 02	3 3
Company L.....	do	do			Mar. 24, 99	do	3 3
Company M.....	do	do			do	do	3 3
<i>Tenth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 16, 98			Mar. 15, 02	do	2 11
	Dec. 11, 98	Feb. 28, 01					
Company A.....	June 14, 98	Aug. 16, 98			Apr. 5, 01	do	3 10
	Dec. 23, 98	Feb. 17, 01					
Company B.....	June 14, 98	Aug. 16, 98			Mar. 18, 01	do	3 11
	Dec. 11, 98	Feb. 17, 01					
Company C.....	June 14, 98	Aug. 16, 98			Mar. 18, 01	do	3 11
	Dec. 17, 98	Feb. 17, 01					
Company D.....	June 14, 98	Aug. 16, 98			Mar. 15, 01	do	3 11
	Dec. 17, 98	Feb. 17, 01					
Company E.....	June 14, 98	Aug. 16, 98			Mar. 15, 02	do	2 11
	Dec. 11, 98	Feb. 28, 01					
Company F.....	June 14, 98	Aug. 16, 98			Mar. 15, 02	do	2 11
	Dec. 11, 98	Feb. 28, 01					
Company G.....	June 14, 98	Aug. 16, 98			Mar. 15, 02	do	2 11
	Dec. 11, 98	Feb. 28, 01					
Company H.....	June 14, 98	Aug. 16, 98			Mar. 15, 02	do	2 11
	Dec. 23, 98	Feb. 28, 01					
Company I.....	do	Sept. 25, 99			Mar. 18, 01	do	2 4
Company K.....	Dec. 17, 98	do			do	do	2 4
Company L.....	do	do			do	do	2 4
Company M.....	Dec. 23, 98	do			do	do	2 4
<i>Eleventh Infantry.</i>							
Headquarters.....			July 23, 98	Dec. 5, 00	Apr. 5, 01	do	3 10
Company A.....			July 22, 98	Aug. 12, 00	Apr. 15, 01	do	3 6
Company B.....			July 23, 98	do	do	do	3 6
Company C.....			July 22, 98	do	do	do	3 6
Company D.....			July 23, 98	do	do	do	3 6
Company E.....			do	Apr. 8, 02	Apr. 21, 02	do	4 2
Company F.....			do	do	do	do	4 2
Company G.....			do	do	do	do	4 2
Company H.....			do	do	do	do	4 2
Company I.....			do	Dec. 3, 00	Apr. 5, 01	do	3 10
Company K.....			do	Dec. 5, 00	May 25, 01	do	3 9
Company L.....			July 22, 98	do	do	do	3 9
Company M.....			do	do	Apr. 5, 01	do	3 10
<i>Twelfth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 23, 98			Feb. 19, 99	Apr. 26, 02	3 5
Company A.....	do	do			do	do	3 5
Company B.....	do	do			do	do	3 5
Company C.....	do	do			do	do	3 5
Company D.....	do	do			do	do	3 5

<sup>a</sup> In China since July 6, 1900.

Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Twelfth Infantry—Continued.</i>							
Company E.....	June 14, 98	Aug. 23, 98			Feb. 19, 99	Apr. 26, 02	3 5
Company F.....	do	do			do	do	3 5
Company G.....	do	do			do	do	3 5
Company H.....	do	do			do	do	3 5
Company I.....					do	do	3 2
Company K.....					do	do	3 2
Company L.....					do	do	3 2
Company M.....					do	do	3 2
<i>Thirteenth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 14, 98			Apr. 28, 99	July 19, 02	3 6
Company A.....	do	do			do	do	3 5
Company B.....	do	do			do	do	3 5
Company C.....	do	do			do	do	3 5
Company D.....	do	do			do	do	3 5
Company E.....	do	do			do	do	3 5
Company F.....	do	do			do	do	3 5
Company G.....	do	do			do	do	3 5
Company H.....	do	do			do	do	3 5
Company I.....					do	do	3 3
Company K.....					do	do	3 3
Company L.....					do	do	3 3
Company M.....					do	do	3 3
<i>Fourteenth Infantry.</i>							
Headquarters.....					May 25, 98	Aug. 18, 01	3 3
Company A.....					do	Apr. 26, 00	1 11
Company B.....					June 24, 99	do	10
Company C.....					May 25, 98	do	1 11
Company D.....					do	do	1 11
Company E.....					do	Aug. 18, 01	3 3
Company F.....					do	do	3 3
Company G.....					Aug. 4, 98	do	3 0
Company H.....					June 24, 99	do	2 2
Company I.....					Aug. 4, 98	do	3 0
Company K.....					do	do	3 0
Company L.....					do	do	3 0
Company M.....					do	do	3 0
<i>Fifteenth Infantry.</i>							
Headquarters.....	Nov. 28, 98	Jan. 9, 00			July 17, 00	Sept. 11, 02	3 3
Company A.....	do	do			do	do	3 3
Company B.....	do	do			do	do	3 3
Company C.....	do	do			do	do	3 3
Company D.....	do	do			do	do	3 3
Company E.....	do	Oct. 20, 99			Feb. 16, 02	Sept. 6, 02	1 5
Company F.....	do	do			do	do	1 5
Company G.....	do	do			do	Sept. 11, 02	1 6
Company H.....	do	do			do	do	1 6
Company I.....	do	Jan. 9, 00			Aug. 1, 00	do	3 3
Company K.....	do	do			do	do	3 3
Company L.....	do	do			do	do	3 3
Company M.....	do	do			do	do	3 3
<i>Sixteenth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 18, 98			May 30, 99	July 8, 02	3 3
Company A.....	do	do			do	do	3 3
Company B.....	do	do			do	Aug. 12, 02	3 5
Company C.....	do	do			do	July 8, 02	3 3
Company D.....	do	do			do	do	3 3
Company E.....	do	do			do	do	3 8
Company F.....	do	do			do	do	3 3
Company G.....	do	do			do	Aug. 12, 02	3 5
Company H.....	do	do			do	do	3 5
Company I.....					do	July 8, 02	3 1
Company K.....					do	do	3 1
Company L.....					do	do	3 1
Company M.....					do	Aug. 12, 02	3 2
<i>Seventeenth Infantry.</i>							
Headquarters.....	June 14, 98	Aug. 21, 98			Feb. 19, 99	Mar. 31, 02	3 4
Company A.....	do	do			do	July 22, 02	3 7
Company B.....	do	do			Jan. 19, 99	Apr. 2, 02	3 5
Company C.....	do	do			Feb. 19, 99	July 22, 02	3 7
Company D.....	do	do			Feb. 3, 99	do	3 8

Organization.	Cuba.		Porto Rico.		Philippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Seventeenth Infantry—Continued.</i>							
Company E	June 14, 98	Aug. 21, 98			Feb. 19, 99	Mar. 31, 02	Yrs. M. 3 4
Company F	do	do			do	do	3 4
Company G	do	do			Jan. 19, 99	do	3 5
Company H	do	do			Feb. 3, 99	do	3 4
Company I					Jan. 19, 99	Apr. 2, 02	3 2
Company K					Feb. 3, 99	do	3 2
Company L					do	July 17, 02	3 5
Company M					Jan. 19, 99	Apr. 2, 02	3 2
<i>Eighteenth Infantry.</i>							
Headquarters					June 27, 98	Oct. 12, 01	3 4
Company A					June 15, 98	July 13, 00	2 1
Company B					do	do	2 1
Company C					June 27, 98	do	2 1
Company D					do	do	2 1
Company E					June 15, 98	Oct. 12, 01	3 4
Company F					June 27, 98	do	3 4
Company G					June 15, 98	do	3 4
Company H					June 27, 98	do	3 4
Company I					Nov. 7, 98	do	2 11
Company K					do	do	2 11
Company L					do	do	2 11
Company M					do	do	2 11
<i>Nineteenth Infantry.</i>							
Headquarters			July 23, 98	June 5, 99	July 24, 99	June 21, 02	3 9
Company A			do	do	July 26, 99	do	3 9
Company B			do	do	July 24, 99	do	3 9
Company C			do	do	July 26, 99	do	3 9
Company D			do	do	July 24, 99	do	3 9
Company E			do	do	July 26, 99	do	3 9
Company F			do	do	July 24, 99	do	3 9
Company G			do	do	do	do	3 9
Company H			do	do	do	do	3 9
Company I			do	do	do	do	3 9
Company K			do	do	do	do	3 9
Company L			do	do	July 26, 99	do	3 9
Company M			do	do	July 24, 99	do	3 9
<i>Twentieth Infantry.</i>							
Headquarters	June 14, 98	Aug. 23, 98			Jan. 26, 99	Mar. 13, 02	3 4
Company A	do	do			do	do	3 4
Company B	do	do			do	do	3 4
Company C	do	do			do	do	3 4
Company D	do	do			do	do	3 4
Company E	do	do			do	Mar. 27, 02	3 4
Company F	do	do			do	do	3 4
Company G	do	do			do	do	3 4
Company H	do	do			do	do	3 4
Company I	do	do			do	Mar. 13, 02	3 2
Company K	do	do			do	do	3 2
Company L	do	do			do	do	3 2
Company M	do	do			do	do	3 2
<i>Twenty-first Infantry.</i>							
Headquarters	June 14, 98	Aug. 23, 98			Apr. 18, 99	June 1, 02	3 4
Company A	do	do			do	do	3 4
Company B	do	do			do	do	3 4
Company C	do	do			do	do	3 4
Company D	do	do			do	do	3 4
Company E	do	do			do	do	3 4
Company F	do	do			do	do	3 4
Company G	do	do			do	do	3 4
Company H	do	do			do	do	3 4
Company I	do	do			do	do	3 1
Company K	do	do			do	do	3 1
Company L	do	do			do	do	3 1
Company M	do	do			do	do	3 1
<i>Twenty-second Infantry.</i>							
Headquarters	June 14, 98	Aug. 20, 98			Feb. 1, 99	Feb. 26, 02	3 3
Company A	do	do			do	do	3 3

aThe Third Battalion, Eighteenth Infantry, sailed for Honolulu August 21 and served there to November 7, 1898.

Organization.	Cuba.		Porto Rico.		Philippines.		Total Insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Twenty-second Infantry—Cont'd.</i>							
Company B	June 14, 98	Aug. 23, 98			Apr. 18, 99	June 1, 02	Yrs. M. 3 3
Company C	do	do			do	do	3 3
Company D	do	do			do	do	3 3
Company E	do	do			do	do	3 3
Company F	do	do			do	do	3 3
Company G	do	do			do	do	3 3
Company H	do	do			do	do	3 3
Company I					do	do	3 1
Company K					do	do	3 1
Company L					do	do	3 1
Company M					do	do	3 1
<i>Twenty-third Infantry.</i>							
Headquarters					June 27, 98	Dec. 1, 01	3 5
Company A					Oct. 17, 98	do	3 1
Company B					June 27, 98	do	3 5
Company C					do	do	3 5
Company D					June 15, 98	do	3 6
Company E					do	do	3 6
Company F					do	do	3 6
Company G					June 27, 98	do	3 5
Company H					June 15, 98	do	3 6
Company I					Oct. 17, 98	July 27, 00	1 9
Company K					do	do	1 9
Company L					June 27, 98	do	2 1
Company M					Oct. 17, 98	do	1 9
<i>Twenty-fourth Infantry.</i>							
Headquarters	June 14, 98	Sept. 3, 98			July 14, 99	Aug. 1, 02	3 3
Company A	do	do			do	do	3 3
Company B	do	do			Oct. 1, 00	do	2 1
Company C	do	do			June 22, 99	July 22, 99	3 4
Company D	do	do			Oct. 1, 00	do	2 0
Company E	do	do			June 22, 99	Aug. 1, 02	3 4
Company F	do	do			July 14, 99	do	3 3
Company G	do	do			June 22, 99	do	3 4
Company H	do	do			July 14, 99	do	3 3
Company I	do	do			June 22, 99	do	3 1
Company K	do	do			July 14, 99	July 22, 02	3 0
Company L	do	do			do	do	3 0
Company M	do	do			Oct. 1, 00	July 22, 02	1 10
<i>Twenty-fifth Infantry.</i>							
Headquarters	June 14, 98	Aug. 22, 98			July 1, 90	Aug. 13, 02	3 4
Company A	do	do			Oct. 1, 00	Aug. 1, 02	2 0
Company B	do	do			July 1, 99	do	3 3
Company C	do	do			Oct. 1, 00	do	2 0
Company D	do	do			do	do	2 0
Company E	do	do			June 28, 99	Aug. 13, 02	3 4
Company F	do	do			July 1, 99	do	3 4
Company G	do	do			Oct. 1, 00	Sept. 6, 02	2 1
Company H	do	do			June 28, 99	Aug. 13, 02	3 4
Company I	do	do			July 1, 99	do	3 1
Company K	do	do			do	do	3 1
Company L	do	do			do	do	3 1
Company M	do	do			do	do	3 1
<i>Twenty-sixth Infantry.</i>							
Headquarters <sup>a</sup>					July 10, 01		1 3
Company A					Feb. 16, 01		1 8
Company B					do		1 8
Company C					do		1 8
Company D					do		1 8
Company E					July 1, 01		1 3
Company F					do		1 3
Company G					do		1 3
Company H					do		1 3
Company I					Feb. 16, 01		1 8
Company K					do		1 8
Company L					do		1 8
Company M					do		1 8

<sup>a</sup>The Second Battalion, Twenty-sixth Infantry, and Third Battalion, Thirtieth Infantry, were organized in the Philippines.

Organization.	Cuba.		Porto Rico.		Phillippines.		Total insular service.
	Departure.	Return.	Departure.	Return.	Departure.	Return.	
<i>Twenty-seventh Infantry.</i>							
Headquarters					Jan. 1, 02		Yrs. M. 9
Company A					do		9
Company B					do		9
Company C					do		9
Company D					do		9
Company E					Jan. 21, 02		8
Company F					do		8
Company G					do		8
Company H					do		8
Company I					Dec. 5, 01		10
Company K					do		10
Company L					do		10
Company M					do		10
<i>Twenty-eighth Infantry.</i>							
Headquarters					Nov. 15, 01		11
Company A					do		11
Company B					do		11
Company C					do		11
Company D					do		11
Company E					Nov. 16, 01		11
Company F					do		11
Company G					do		11
Company H					do		11
Company I					Nov. 15, 01		11
Company K					do		11
Company L					do		11
Company M					do		11
<i>Twenty-ninth Infantry.</i>							
Headquarters					Apr. 1, 02		6
Company A					do		6
Company B					do		6
Company C					do		6
Company D					do		6
Company E					do		6
Company F					do		6
Company G					do		6
Company H					do		6
Company I					do		6
Company K					do		6
Company L					do		6
Company M					do		6
<i>Thirtieth Infantry.</i>							
Headquarters <sup>a</sup>					June 3, 01		1 4
Company A					Apr. 16, 01		1 6
Company B					do		1 6
Company C					do		1 6
Company D					do		1 6
Company E					Mar. 15, 01		1 7
Company F					do		1 7
Company G					do		1 7
Company H					do		1 7
Company I					do		1 7
Company K					July 28, 01		1 1
Company L					Aug. 19, 01		1 1
Company M					do		1 1
					July 28, 01		1 2

<sup>a</sup>The Second Battalion Twenty-sixth Infantry, and Third Battalion, Thirtieth Infantry, were organized in the Philippines.

NOTE.—The services of the Sixth Cavalry, Tenth Field Battery, Twenty-fifth, Twenty-seventh, Thirty-first, and Thirty-sixth Companies Coast Artillery, and the Ninth, Fourteenth, and Fifteenth Infantry in China are included in the service in the Philippines.

The following troops are now serving in the Philippines: Second Battalion, United States Engineers; First, Fifth, Sixth, Eleventh, and Fifteenth Cavalry; Fourteenth, Fifteenth, and Twenty-fifth Batteries Field Artillery; Twenty-fifth, Twenty-seventh, Thirty-first, and Thirty-sixth Companies Coast Artillery; First, Second, Fifth, Tenth, Eleventh, Twenty-sixth, Twenty-seventh, Twenty-eighth, Twenty-ninth, and Thirtieth United States Infantry.

## MILITARY GEOGRAPHICAL DEPARTMENTS.

The following changes have been made since the date of last report: The Department of Cuba was discontinued May 20, 1902, on which day the island was formally delivered over to its newly organized civil government.

At the date of the last report, the Division of the Philippines embraced the departments of Northern Luzon, Southern Luzon, the Visayas, and Mindanao and Jolo. These four departments were discontinued November 30, 1901, and the departments of North Philippines and South Philippines created. These last were discontinued September 30, 1902, the Division of the Philippines consisting of the three departments indicated below.

The present territorial limits of the military geographical division and departments are as follows:

*Division of the Philippines*, consisting of the departments of Luzon, the Visayas, and Mindanao.

*Department of Luzon*, to include all that portion of the Philippine Archipelago lying north of a line passing southeasterly through the West Pass of Apo or Mindoro Strait, to the twelfth parallel of north latitude; thence east along said parallel to the one hundred and twenty-fourth degree, ten minutes east of Greenwich, but including the entire island of Masbate; thence northerly to and through San Bernardino Strait.

*Department of the Visayas*, to include all islands south of the southern line of the Department of Luzon and east of longitude  $121^{\circ} 45'$  east of Greenwich and north of the ninth parallel of latitude, excepting the islands of Mindanao, Paragua, and all islands east of the Straits of Surigao.

*Department of Mindanao*, to include all the remaining islands of the Philippine Archipelago.

*Department of California*.—States of California and Nevada, the Hawaiian Islands, and their dependencies.

*Department of the Colorado*.—States of Wyoming (except so much thereof as is embraced in the Yellowstone National Park), Colorado, and Utah and the Territories of Arizona and New Mexico.

*Department of the Columbia*.—States of Washington, Oregon, and Idaho (except so much thereof as is embraced in the Yellowstone National Park) and the Territory of Alaska.

*Department of Dakota*.—States of Minnesota, North Dakota, South Dakota, Montana, and so much of Wyoming and Idaho as is embraced in the Yellowstone National Park.

*Department of the East*.—New England States, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, the island of Porto Rico, and the islands and keys adjacent thereto.

*Department of the Lakes*.—States of Wisconsin, Michigan, Illinois, Indiana, Ohio, Kentucky, and Tennessee.

*Department of the Missouri*.—States of Iowa, Nebraska, Missouri, Kansas, and Arkansas, the Indian Territory, and the Territory of Oklahoma.

*Department of Texas*.—State of Texas.



## THE MILITARY ACADEMY.

## THE CORPS OF CADETS.

The maximum number of cadets is 492. The academic year opens with 471 cadets on the rolls of the Academy, the largest number ever belonging to it at one time. They are divided between the four classes as follows: First class, 94; second class, 129; third class, 130; fourth class, 118. Of this number 2 are foreigners, receiving instruction at their own expense under special authority of Congress, 1 being from Costa Rica and 1 from Venezuela. September 1, 1901, there were 464 cadets, including 1 foreigner.

The following changes occurred during the year: Discharged for deficiency in studies, 39; dismissed, 1; resigned, 12; graduated, 54.

According to the new regulations on the subject, the regular examination of candidates for admission was held for the first time this year on May 1 at sixteen Army posts, selected with a view of reducing to a minimum the expenses of candidates in attending. A special examination was also held at West Point on July 25, in order to fill as many vacancies as practicable and make the new class as strong as possible; otherwise, on account of this year's small graduating class, it would have been considerably less in numbers than has been the case in the past three years.

For the examinations in May and July there were appointed 261 candidates, including principals and alternates; 59 failed to report; 3 were rejected, both mentally and physically, and 54 were disqualified mentally. Of those qualified mentally, 88 were accepted upon certificates from high schools, colleges, or universities, and competitive examinations; 54 passed the regular examination, and 3 former cadets were examined physically only. Of the 145 candidates qualified mentally, 13 were rejected by medical boards. No vacancies existed for 26 alternates who qualified mentally and physically. As a result of the two examinations, 106 candidates were admitted, including 10 alternates, and these, with 5 former cadets, reappointed with the approval of the academic board, and 7 turned back at the June examination, gave the incoming class a strength of 118.

In connection with entrance examinations the continued enforcement of the rule that candidates are to be examined at the Army posts nearest their homes is recommended in order to reduce to a minimum the ills following attendance at preparatory schools adjacent to the Academy.

## HEALTH.

The health of cadets and the command generally has been good throughout the year.

## PAY AND SUPPLIES OF CADETS.

Two important changes in the pay and allowances of cadets are to be noted. In accordance with recommendations, Congress has placed the military cadet upon an equal pay status with his fellows of the Naval Academy, thus giving the former a welcome annual increase in his pay of \$69.50. This change will go far toward relieving what had become a difficult and embarrassing situation. Of the increase, \$48 has been set aside for the cadet's graduation-equipment fund, which is thus doubled, and the remainder will be made to cover the necessary

expenses attending his social amusements, athletic games, and literary societies. The other change is the Congressional provision that the actual necessary traveling expenses of candidates from their homes to the Military Academy shall be credited to them after admission as cadets. The effect of this is to place cadets from all parts of the country upon an equal footing as regards the expense of entering the Academy, a wise and just policy and one that is followed in similar matters in the military service.

The food furnished cadets is abundant in quantity, of good quality and variety.

#### DISCIPLINE.

The discipline of the corps of cadets has been highly satisfactory throughout the year.

#### ACADEMIC MATTERS.

In the department of modern languages the importance of giving graduates as great a knowledge of the Spanish language as possible is recognized by a provision giving the cadets of the first class additional instruction in the language until the new curriculum, which commences with the present fourth class, becomes fully effective.

Consequent upon the action of Congress in freeing the Academy from the long-existing restraint of an entrance examination rigidly fixed by statute, a much-desired revision of the curriculum has been made.

#### ADMISSION OF CANDIDATES ON CERTIFICATE.

The acceptance of certificates of mental preparedness marks a new policy at the Military Academy in connection with the admission of candidates to cadetships. The following is the regulation under which the academic board may accept such certificates in lieu of the regular mental entrance examination:

First. The properly attested examination papers of a candidate who receives his appointment through a public competitive written examination covering the range of subjects prescribed for admission.

Second. The properly attested certificate of graduation from a public high school or a State normal school, in which the course of study, together with the requirements for entrance, shall cover the range of prescribed subjects.

Third. A properly attested certificate that the candidate is a regular student of any incorporated college or university, without condition as to any prescribed subject.

The principal object of this regulation is to permit those candidates who at the time of appointment (generally a year prior to date of admission) have satisfactorily covered the subjects required for admission to continue their regular course of study and the proper gradual development of their minds, instead of putting them in position where they feel compelled to go back and review elementary work, with consequent expense, loss of time, and, as usually occurs, attendance at some coaching school, with resulting deadening of the reasoning faculties.

Under this provision of regulations there were received from candidates (principals and alternates) for entrance to the present fourth class 114 certificates, of which 51 were from high schools or normal

schools, 42 were from colleges, 9 were from both high schools and colleges, 3 were from competitive examinations, and 9 were from private schools or academies (not within the scope of the regulations).

Of the candidates presenting certificates 88 were considered satisfactory by the academic board, and 62 of these entered the class; 26 were considered unsatisfactory, and 6 of these entered the class on passing the regular mental entrance examination.

There seemed to be a general effort on the part of principals of schools and presidents of colleges to submit exact facts as to the work and standing of the candidates, as required by the forms of certificates adopted, and in only a few instances was there any apparent effort on the part of candidates themselves to secure admission on an insufficient certificate.

Since this method of admission is an entirely new departure, the certificates were examined with great care and the career of those young men who have been admitted on certificates will be carefully watched, with a view to determining as nearly as possible whether satisfactory material is obtained in this way. It is the intention, also, in case any cadet so admitted is found deficient in the first six months of his course, to invite the attention of the school or college official to the fact, in the hope that such action will result in a closer touch between the Academy and the general school system of the country, and a certification of only such young men as are preeminently qualified to master the curriculum and become officers of our Army. In this way the Academy will become a greater factor in the educational system of the country than has been the case in the past.

#### THE NEW CURRICULUM.

The present curriculum of the Academy is embraced under 10 departments. Each department includes several kindred subjects, so that there are 41 or 42 distinct but related subjects of instruction.

The object of the Military Academy is to make officers of the Army and, of course, to produce as high a type of officer as is possible under the conditions. In the conception of this type it has been assumed that the profession of the officer in this country is likely at any time to be full of responsible work and to need men of power and strong character.

The Military Academy differs widely from other scientific schools, and especially in that its pupils are not being prepared to earn a livelihood from the direct or immediate application of any of the special sciences taught. The Government provides this; but the graduate is expected to acquire a knowledge of the principles of these sciences to which he may add by individual effort, as occasion requires, and be prepared to meet the demands that may be made upon a professional soldier. This education to meet the higher needs of the service should not only instill truths, but should draw out, exercise, and develop the minds, faculties, and forces, and to do this in a manner that inculcates confidence in one's powers and reliance on individual and honest effort, and thus develop character as well as mind; and those students endowed with the requisite aptitude should be so equipped that by proper self-effort they may become originators and developers and not mere craftsmen in their scientific work and profession.

The records of the graduates of the academy prove that this theory

of teaching has not been deficient in producing character, mental power, and scientific and professional accomplishments.

The academy was called upon to educate the great majority of its pupils both generally and professionally, for the requirements for admission have always been very moderate. The academy has always attempted what no other school has—to educate scientific soldiers for all branches of the service. It is not probable that either of these requirements can ever be in any large part dispensed with, for the requirements for admission are not likely to be made greatly more stringent, and the necessity for preparing the graduates for all branches of the service is even greater now than ever before, owing to the method of filling appointments to the staff corps by detail from the line.

In connection with the relative employment of the entire time of a cadet while at the academy, it is pertinent to remark that the length of the academic year at West Point, together with the small number of holidays, makes the course of four years almost as long in actual working time as five years of the ordinary college course of thirty weeks. The academic year at the sister academy at Annapolis is also several weeks shorter than ours.

#### CENTENNIAL ANNIVERSARY.

This year has marked the completion of the first century in the life of the Military Academy, which was established March 16 and was formally opened July 4, 1802. The close of the academic year was decided upon as the most suitable time for commemorating the anniversary, and the occasion was celebrated with appropriate ceremonies on the 9th, 10th, and 11th days of June.

If the impressive words of the honorable Secretary of War at the centennial anniversary are accepted, that "the Military Academy is more necessary now than one hundred years ago," general satisfaction should be felt with the institution's prospects in entering upon the second century of its work. The school has for its object the training of cadets for the military service of our country. It is a school for the whole Army—not for any special arm. Its scholastic work covers a range of subjects connected with the many duties the educated American officer is expected and must be prepared to perform, and the ideal of its practical work is the graduation yearly of well-grounded young soldiers loyal to their duty and their country and trained to at once take up all the work of subaltern officers.

Recent Congressional action will provide the school with an equipment for work as perfect in its essential requirements as experience can provide. While many thoughtful people believe the number of cadets could with advantage to the country be larger, their number is such as to continue to insure the maintenance of high standards of duty and efficiency in the Army.

The recommendations of the Superintendent that—

An associate professor of modern languages be regularly detailed from the Army, and to have while so serving the pay and allowances of a major. The increased pay recommended should be given in order to make the position an attractive one, and because the officer selected for it would fill a higher position than the assistant professors in the department, who under the law have the pay of captains, mounted.

The ability of the graduate to acquire a good speaking knowledge of foreign languages after leaving the Academy would be increased if the instructors and cadets

heard them spoken more in the class room instead of confining the instruction quite so much to blackboard work. With this object in view it is requested that the Secretary of War recommend that Congress make provision for the employment of three assistant instructors in the department of modern languages, to be civilians, natives of the countries where the above languages are spoken—two for the Spanish and one for the French language.

In the opinion of the professor of philosophy, in which I concur, the permanent detail of an army officer at the observatory is not desirable, and the only way in which the observatory can give the return to science that should be expected from it is by the permanent employment of an astronomer. I recommend that this be done. A competent person can be secured at a reasonable salary, and he would be of much assistance to the professor in the course of practical astronomy which cadets are required to take. In addition to this work he would be required to take up a series of astronomical observations in some field of pure science and in their prosecution secure valuable data for a regular series of publications from the observatory. In this way only can this valuable equipment be made to give here the return to be expected from it. I believe the return to be had would justify the additional expense.

A further increase of 7 men in the strength of the light artillery detachment is recommended. This detachment has now an enlisted strength of 53 men, but the year's experience shows that this is not sufficient to enable it to properly meet the necessary demands on it. The transfer to Fort Leavenworth of the company of engineers so long stationed at West Point and the substitution for it of a detachment of engineers of less strength has necessarily increased the duties of the other detachments and makes the increase recommended for the artillery detachment especially necessary—

are concurred in and commended for favorable consideration.

#### MILITARY INFORMATION DIVISION.

Capt. Eaton A. Edwards, Twenty-seventh Infantry, and Capt. Joseph S. Herron, Second Cavalry, have remained on duty in the division during the entire year.

On September 30 Capt. Edwin A. Root, Tenth Infantry, at his own request, was relieved from duty in the division and ordered to join his regiment.

Lieut. Robert S. Clark, Ninth Infantry, reported for duty in the division on November 1, 1901.

On November 20, 1901, Capt. John C. Gilmore, jr., Artillery Corps, reported for temporary duty in the division in connection with other duties assigned to him from time to time by the officer in charge of public buildings and grounds of the District of Columbia. He was relieved from this duty on February 15, 1902.

On December 4, 1901, Capt. W. S. Overton, Artillery Corps, was relieved from duty in the division for the purpose of assuming command of his company.

Lieut. Harley B. Ferguson, Corps of Engineers, reported for duty in the division on December 4, 1901, relieving Captain Overton.

Upon the relief of Captain Root, September 30, 1901, Capt. Joseph S. Herron, Second Cavalry, was placed in temporary charge of the photographic section, and has remained in charge of that section to date.

Lieut. Williams S. Martin, Second Cavalry, was on temporary duty in the division from January 6 to March 25, 1902, in connection with the preparation of maps of the islands of Samar and Marinduque.

On June 18, 1902, the Division of Military Information, Adjutant-General's Office, Division of the Philippines, was made a branch of this division for general purposes, such as furnishing the War Department professional information of a general character respecting the Philippine Archipelago and surrounding countries, and for financial

assistance from this division. For local purposes it was left under the immediate control of the commanding general, Division of the Philippines. For the current fiscal year a small allotment from the "Contingencies, Military Information Division, Adjutant-General's Office," has been made for the Manila branch office, but it is feared that it will be entirely inadequate for the needs of that office. In making up the estimates for the fiscal year 1904 an increase of \$3,360 was asked for to meet the additional expense of the branch office and the office of the military attaché at Habana, recently established. Already considerable valuable data have been received from the branch office, and it is expected that the mutual assistance rendered will soon demonstrate the wisdom of the important action taken in this case.

All the military technical publications, dispatches, reports, etc., received in the division from our military attachés and other sources abroad, as well as from miscellaneous domestic sources, have been noted, carded, and properly classified. In this connection it is proper to state that the carding and indexing of the vast amount of information received in the division from various sources have been resumed in a systematic and practical manner. This work was necessarily interrupted during the war with Spain by the relief for active service in the field of the officers detailed in the division for that purpose, and the lack at that time of a trained civil force to continue the work where the officers left off. However, the translators in the division have been instructed in this work, and under the direction of officers the congested condition of this part of the work of the Military Information Division has been almost entirely removed.

Besides the regular work a large number of communications written in foreign languages and addressed to the War Department or its several bureaus and offices have been translated in the division as well as many documents, reports, pamphlets, etc., desired for official use.

During the year the division has prepared and issued the following-described publications, viz:

No. 33. A second edition of the Reports on Military Operations in South Africa and China (mentioned in previous report).

List of Military Publications, Books, Pamphlets, etc., received in the Adjutant-General's Office, War Department, from September 1 to December 31, 1901.

No. 2. The Organization of the German Army; a second edition of 500 copies.

No. 34. Colonial Army Systems of the Netherlands, Great Britain, France, Germany, Portugal, Italy, and Belgium.

Index of Special Military Subjects contained in Books, Pamphlets, and Periodicals received in the Military Information Division, Adjutant-General's Office, War Department, during the quarter ending March 31, 1902.

Same for the quarter ending June 30, 1902.

Same for the quarter ending September 30, 1902 (in course of preparation).

No. 35. Target Practice and Remount Systems Abroad.

No. 36. Notes of Military Interest for 1901.

In addition to the data contained in the publications, reports, and maps of the division wherever information has been received, which was considered of special interest or value to any particular bureau or office of the War Department, it has been sent at once to the bureau or office concerned. In reply to requests, a large amount of data on various military subjects has been furnished from time to time to the different bureaus and offices of the War Department, to officers of the Army preparing lyceum essays, lectures, etc., to the service schools, to the National Guard, and to individuals. It has been specially the aim of the division to afford all possible aid to officers of the Army in prosecuting their professional studies.

By arrangement with the Chief Intelligence Officer of the Navy there has been established a system of exchange of information whereby professional data received in one office, which is of interest or value to the other, is promptly furnished for notation and carding. This method of reciprocal exchange makes the latest data obtained available for immediate reference, and has already proved of much benefit to this division, as the Navy system of reports of intelligence officers is very comprehensive. The Chief Intelligence Officer of the Navy has always been ready to cooperate heartily with this division, to the mutual advantage of both services, and has responded promptly and courteously to every request for information.

#### WORK OF THE MAP SECTION.

The map section has been engaged in the preparation of maps, plans, sketches, tracings, and illustrations for the various publications issued by the division. Work is far advanced on a large-scale map of the entire Philippine Archipelago, which is being compiled from the numerous route sketches and itineraries made by our own troops in the islands and the sheets of the 1-inch scale map of Luzon, now being constructed by the chief engineer's office, Division of the Philippines. During the past year 1,208 maps have been received, entered, and filed in the map section. New editions of the "Map of the Visayan Group" and of the "Mapa de la Archipelago Filipino" were issued. A map showing the stations occupied by the United States Army (mentioned in last report) has also been published and distributed to the Army. Since the last report 3,085 copies of the maps published by the division were issued to troops, individual officers, and others. The office has lately begun, under direction of the Adjutant-General, the preparation of maps and problems for the use of boards for examination of officers.

In connection with the work of this section it is very gratifying to report that the commissioner of education of Porto Rico recently stated that the "Outline map of Porto Rico, 1899," prepared in the Military Information Division, was the most satisfactory map of that island he could find for the purpose, and requested 1,000 copies for use in the schools there. The map was corrected to date and permission given the lithographer to furnish the maps to the commissioner, the cost of same to be paid by him.

#### WORK OF THE PHOTOGRAPHIC SECTION.

The work performed by this section has been as follows:

One thousand eight hundred and twenty-three negatives, sizes from 4 by 5 inches to 34 by 34 inches, of which 927 are wet plates and 896 dry plates.

Seven thousand two hundred and seventy-eight, sizes from 4 by 5 inches to 8 by 8 feet.

These include military maps of foreign countries and of our new possessions, maneuver maps, maps of military reservations, battlefields, explorations, etc. Many enlargements or reductions to the same scale of portions of maps or various scales have been made for use in compiling complete maps by the draftsmen of the division. This process of enlargement or reduction is a saving of time, labor, and expense, and an aid to accuracy.

Facsimile copies of important letters and other documents in the possession of the War Department and required by Congress or by other

departments of the Government have been furnished without the risk of loss or damage to the originals.

Photographs for reports to the War Department of officers and boards have been made, and, where required for publication, special prints have been made of them for the use of the photo-engravers in making half-tone plates.

Illustrations and plans of new inventions, arms, clothing, equipments, means of transportation, defenses, buildings, public works, etc., of foreign armies, as well as our own, have been made for the information of the various officials of the Government, the Army, and the militia.

An important branch of photography, that of orthochromatic photography, is used, whereby the reproduction of colored maps and blue prints is possible.

The first volume of a series of war atlases, entitled "Scenes and incidents connected with the war between United States and Spain," and consisting of a pictorial history of the war from photographs taken at the scenes of operations, has been completed for the records of the war between the United States and Spain. The second volume is now ready for binding. The third volume is 75 per cent completed. Work on these atlases has been carried on only at times when other work was not pressing, and progress has, therefore, been slow.

The photographic establishment has not only proven indispensable to the expeditious accomplishment of the work of this character of the Adjutant-General's Department, but has also performed a large amount of similar work for the other bureaus and offices of the War Department, it having been at their service at all times. It has also at times assisted other departments of the Government.

The advantages derived from this establishment from the stand-points of economy, quality of work, and promptness are great. The glass plates for negatives are cleaned and used over and over again. The wet plates are all prepared by our own force. All waste is reclaimed, the silver precipitated and refined and used over again. During the last fiscal year out of 150 ounces of silver used 97 ounces of that amount were from previous savings. Military photography being a specialty, the quality of work done by our special photographers, under the direct supervision of the officers of the War Department, is superior to that of the outside photographer. Vexatious and costly delays of estimates, shipments, explanations, the sending back and forth of proofs, and the pressure of other business of the mercantile photographer on many transactions daily are avoided. Each piece of work is turned out by the photographic establishment at the minimum cost and usually on the same day as ordered.

#### LIST OF MILITARY ATTACHÉS AT AMERICAN EMBASSIES AND LEGATIONS ABROAD.

##### EMBASSIES.

London: Capt. Edward B. Cassatt, Thirteenth Cavalry.

Paris: Capt. T. Bently Mott, Artillery Corps.

Berlin: Lieut. Col. John B. Kerr, Cavalry, assistant adjutant-general. (Colonel Kerr has been relieved and Capt. William S. Biddle, jr., Fourteenth Infantry, detailed as his successor.)

St. Petersburg: Capt. Stephen L'H. Slocum, Eighth Cavalry. (Relieved July 1, 1902.)

Vienna: Capt. Floyd W. Harris, Fourth Cavalry.



## LEGATIONS.

Berne: Maj. George R. Cecil, Third Infantry. (Relieved and under orders to join his regiment.)

Copenhagen and Stockholm: Lieut. Col. W. R. Livermore, Corps of Engineers. (Relieved March 14, 1902.)

Pekin and Seoul: Capt. James H. Reeves, Fourteenth Cavalry. (Relieved May 29, 1902, and Capt. Andre W. Brewster, Ninth Infantry, commandant legation guard at Pekin, detailed in his stead.)

Tokyo: Maj. Oliver E. Wood, Artillery Corps.

Habana: Lieut. Matthew E. Hanna, Second Cavalry.

While the number of military attachés abroad has been reduced, the character and quality of the information received from that source have continued to improve. This is due in a large measure to the reciprocal relations established between the war departments of the several foreign governments at which we have military representatives, and our own, whereby information which is not considered confidential or secret is freely given upon official application of the military attaché to the proper office. I am glad to say that our attachés abroad report that they have, as a rule, been treated with courtesy and consideration, and wherever practicable the information they applied for has been furnished them for the use of their home Government. An instance of this friendly exchange may be cited in securing from the French war department by our military attaché at Paris for our Ordnance Department of a model of the Lebel rifle, with equipments, and a model of the French cavalry saddle and carbine for articles of like character in use in our own service. This exchange was accomplished as an international courtesy, the decree authorizing it having been signed by the President of the French Republic. Every possible courtesy has been shown to foreign attachés here, and all information proper for them to have has been freely furnished.

Attention is again invited to the recommendation contained in several preceding annual reports for increased rank and pay of our military attachés abroad. This appears a small matter here at home, but to the attaché abroad, where rank and precedence govern, it is a matter of very great importance. On occasions of ceremony our attachés are frequently placed in most embarrassing situations. There are only seven attachés abroad at present, and the slight additional expense will be more than compensated for in the net results obtained. I therefore earnestly recommend that the military attachés at our embassies and legations abroad be given the rank, pay, and allowances of colonel and lieutenant-colonel, respectively.

In this connection the suggestion is made from various sources that a remedy could be found in the detail of retired officers of high rank as military attaches, who, while so serving, shall receive the full pay and allowances of their rank. This subject is commended to your careful consideration.

## THE MILITIA.

In regard to the militia of the several States and Territories, letters of instructions were sent to the officers detailed to attend the encampments, and their reports, when received, are examined and prepared for publication, should that be considered desirable. Such publication is not recommended this year, however, as but a small percentage of States have been heard from. The reports thus far received from

officers of the Army detailed to attend State encampments indicate general interest, zeal, and good work on the part of the National Guard, and state that marked improvement was shown during the encampments.

#### INSTRUCTION IN THE ARMY.

The appointment in the Army since 1898 of more than 1,000 officers—from the ranks, ex-volunteers, and civilians—made it an absolute necessity, as pointed out in the last report, that a comprehensive scheme of military instruction should be instituted, looking to the ultimate result of imparting to all officers of the Army a thorough technical knowledge of all their duties relating to drill regulations, guard duty, target practice, service with troops in camp, military law, field engineering, and generally in all branches of knowledge deemed indispensable to military men.

Briefly outlined, the plan adopted, full details of which will be found in appendix, pages 94-97 and 113-122, is as follows:

##### 1. POST OFFICERS' SCHOOLS.

At each military post, under the immediate charge and supervision of the post commander, an officers' school for elementary instruction in theory and practice.

All officers of the line to attend, except under such circumstances as would exempt them from any other duty.

All captains of the line of less than ten years' service, except those graduated from the infantry and cavalry or artillery schools, will be required to qualify in the prescribed course of instruction. Field officers and captains of over ten years' service will be utilized as instructors whenever possible.

These schools to be open for instruction to officers of the several National Guards, to officers of volunteers, and to graduates of military schools and colleges which have had any officers as instructors.

##### 2. SPECIAL-SERVICE SCHOOLS.

The Artillery School, at Fort Monroe, Va.

The Engineer School of Application, Washington Barracks, D. C.

In this school four branches of instruction are established: 1 and 2, military and civil engineering; 3, electricians, and 4, ordnance and armor.

The School of Submarine Defense, Fort Totten, N. Y.

There will be courses of instruction for officers and enlisted men, including electrician sergeants, and, for the present, twenty candidates for that position. The commandant and instructors constituted a "torpedo board" for the consideration of all subjects pertaining to submarine mining and coast defense generally upon which its opinions and recommendations may be desired by the Commanding General of the Army.

The School of Application for Cavalry and Field Artillery, at Fort Riley, Kans.

The Army Medical School, at Washington, D. C.

No detail to any of the above schools to continue more than four years, and no officer to be permitted to pass from one school to another without an intervening tour of service with troops proportionate to the period of previous school service.

The special-service schools to be open to such officers of the National Guard and former officers of volunteers who furnish evidence of such preliminary education as to enable them to benefit by the courses of instruction.

### 3. A GENERAL SERVICE AND STAFF COLLEGE AT FORT LEAVENWORTH, KANS.

This college, which absorbs the infantry and cavalry school at that place, is designed as a school of instruction for all arms of the service, to which are to be sent officers, preferably subalterns, who have been recommended for proficiency attained in the various post officers' schools. This college is also open for instruction to officers of the National Guard and others named under the head "Post officers' schools."

The college staff is required to report to the Secretary of War the qualifications of officers of the National Guard, ex-officers of volunteers, and graduates of military schools and colleges who shall have attended this college, specifying character of service, line or staff, for which they are specially qualified. A register of such qualified students will be kept at the War Department.

### 4. A WAR COLLEGE FOR THE MOST ADVANCED COURSE OF PROFESSIONAL STUDY, AT WASHINGTON BARRACKS, D. C.

The War College Board will exercise general supervision and inspection of all the different schools above enumerated, and maintain through them a complete system of military education, in which each separate school shall perform its appropriate part.

The officers to be detailed to pursue the course at this college are divided into two classes:

First. Those who have been recommended as distinguished graduates of the general service and staff college, and,

Second. Such field officers and captains as may be specially designated by the War Department.

A register will be kept in the War Department in which shall be entered the names of officers of the Regular Army below the grade of colonel, as follows:

Officers who have heretofore exhibited superior capacity, application, and devotion to duty, the names to be selected by a board of officers to be convened for that purpose.

Officers who shall be reported as doing specially meritorious work in the above-mentioned schools other than the officers' schools at posts.

Officers who at any time specially distinguish themselves by exceptionally meritorious service.

It will be the aim of the Department to make this register the basis of selection for details as staff officers, military attachés, and for special service requiring a high degree of professional capacity.

While time and experience will be required in order to bring to perfection the details of this progressive scheme, it is confidently expected that the hearty sympathy and cooperation of all officers of the Army will be enlisted, to the end that full success will be attained.

### INSTRUCTION IN MILITARY SCHOOLS AND COLLEGES.

The legislation authorizing the detail of officers of the Army for duty at schools and colleges having, respectively, capacity to educate

not less than 150 male students above the age of 15, has not, in the past, resulted in the full measure of expected benefit. This has been due to various causes; among others, lack of hearty and full cooperation on the part of the faculties of several colleges with the officer detailed thereat as military instructor, in some cases his value being appreciated purely from a disciplinarian point of view, or as a professor of mathematics, etc.

The aptitude of American youths for military exercises has, however, generally proven very good. At the outbreak of the Spanish-American war many of the young men appointed in the Army were selected from these schools, and a much larger number sought service in the volunteers, where their knowledge of drills, etc., was of much value.

With a view to the full development of the capabilities of the scheme of military instruction in our large schools and colleges, the following plan has been adopted by the War Department:

All educational institutions within the meaning of section 1225 of the Revised Statutes, and of the mandatory acts, have been divided into three classes, as follows:

First class. All schools to which officers of the Army, active or retired, may be detailed under the provisions of existing law, except schools of the second and third classes.

Second class. Agricultural schools established under the provisions of the act of Congress of July 2, 1862, and which are required by said act to include military tactics in their curriculum.

Third class. Military schools or colleges—i. e., those whose organization is essentially military and one of whose primary objects is the acquisition of a high degree of military drill and discipline.

No detail of military instructor shall be made at any institution which does not guarantee to maintain at least one hundred pupils under military instruction.

The rules governing details of officers, and the programme of instruction prescribed as the minimum course of military instruction, practical and theoretical, at each of the three classes indicated above, will be found in appendix, pages 123-132.

#### POST EXCHANGES.

During the year ending June 30, 1902, the average receipts of exchanges in operation in the Army, so far as reports have been received, amounted to \$1,124,542.50 as against \$2,123,077.29 during the preceding fiscal year, and there was received as money on deposit \$23,703.51, making the total amount of money received as \$1,148,246.01. There was expended for merchandise purchased, rents, fixtures and repairs, and expenses of operation, \$888,897.98, which, less deposits, leaves a profit of \$235,641.52. From this amount there was donated to the funds of the several regimental bands \$2,940.84; to the maintenance of post gardens, \$1,301.92; to post libraries, \$589.65; to gymnasiums, \$1,508.11; as prizes for the encouragement of athletic sports, \$4,218.94; and after setting aside the sum of \$86,252.67 as a reserve fund to meet anticipated expenses for at least one month, there was passed to the credit of the companies and mess funds for the benefit of the soldiers, in the form of dividends, the sum of \$138,832.39. The net value of these exchanges, that is to say,

the balance of their combined assets over their liabilities, was, on June 30, 1902, \$249,303.92 as against \$353,748.40 on June 30, 1901.

#### THE RECRUITING SERVICE.

In October, 1901, the enlisted strength of the Army, exclusive of the Hospital Corps and the Porto Rico Provisional Regiment, was 76,084, or only about 1,200 below its authorized strength at that time, as fixed by the President under the act of Congress approved February 2, 1901, and published in General Orders, No. 66, of 1901, from Headquarters of the Army. As shown, however, in my last annual report, the returns indicated that there would be a loss to the regiments in the Philippines, by expiration of terms of enlistment, between October, 1901, and June, 1902, of upward of 20,000 men, while large losses from the same cause were to be anticipated in the Artillery Corps, mostly in the United States. Active recruiting was accordingly continued to meet these losses.

The commanding general, Division of the Philippines, having reported, October 15, 1901, that commands in his division would be decreased about 50 per cent by the end of the following March, and that men going out ought to be replaced, instructions were given for the establishment of a recruit camp at the Presidio of San Francisco, Cal., for the necessary instruction and equipment of recruits, following former plans, and utilizing for the purpose officers returning to the Philippines so far as possible. The recruiting officers at city stations and military posts were also instructed to enlist for infantry and cavalry desirable white applicants fitted for tropical service, and send them to the Presidio and other specified rendezvous, with a view to their equipment and thorough instruction preparatory to shipment to the Philippines. It was further directed that no recruits be sent to the Division of the Philippines until they had been held under observation long enough to develop any infectious diseases to which they might have been exposed prior to enlistment. The shipment to that division of white infantry and cavalry recruits was begun in November, 1901, and continued so long as the necessity existed. Recruits required for the coast and field artillery and the colored regiments in the Philippines were also forwarded as opportunity offered.

The forwarding to that division of recruits of different arms was discontinued as follows:

White cavalry in February, 1902.

White infantry and coast artillery in April, 1902.

Field artillery in June, 1902.

Colored recruits in August, 1902, with the recall of the last colored regiment from the division of the Philippines.

In view of the reduction of the force in the Philippines and the recall of regiments for home duty, instructions were given April 3, 1902, and subsequently to the commanding general, division of the Philippines, to transfer from returning regiments to regiments having the longest time to remain in the Philippines privates in their first enlistment having two years or more to serve. The effect of this action was to retain there recruits who had arrived at a comparatively recent date and been assigned to regiments subsequently recalled to the United States.

In July, 1902, the commanding general, division of the Philippines, was further authorized to supply vacancies in the cavalry and infantry, when necessary, by transfers from returning infantry regiments, or from remaining infantry regiments, that might be in excess, and it is probable it may not be necessary to forward recruits to the Philippines for some time yet, in view of the reduction in the authorized strength of organizations under the President's instructions of July 1, and Oct. 24, 1902, published in General Orders, Nos. 63 and 108, from Headquarters of the Army.

By the middle of February, 1902, it became apparent that the needs in the Philippines and in this country could be fully met by a less rapid accumulation of recruits, and instructions were accordingly given to recruiting officers at all city stations while continuing, unremittingly, their efforts to attract large numbers of applicants, through the wide distribution of printed matter, to make most careful selection therefrom of the very best material, wholly eliminating actual and suspected minors, and all others who might not be beyond all doubt morally, mentally, and physically qualified. This action has resulted in securing recruits in smaller numbers, but of a higher grade, including a much larger proportion of former soldiers. Thus, in January, 1902, the percentage of reenlistments to the whole number accepted was less than 20, while for the month of May it was over 50, and the average for the six months from March to August, 1902, inclusive, was 41.6 per cent.

March 3, 1902, in order to effect a still further reduction in the rate of enlistment, the instructions of February 15 were reiterated, and recruiting officers were directed to close at once auxiliary stations involving any considerable expense without commensurate results in the highest class of recruits. About sixty such stations were closed by the end of March.

General Orders, No. 63, July 1, 1902, from headquarters of the Army, already referred to, announced a reduction of the authorized strength of troops of cavalry to 75 men and of companies of infantry to 80 men; but as regards regiments serving within the United States, it has not been deemed necessary or practicable to maintain them at the full strength thus authorized, which might require assignments of recruits in large detachments, it being desired to so arrange that, in future, expirations of terms of service in any organization shall be equitably distributed, so far as practicable, and also to avoid filling any regiment with recruits who might become "short-term men" by the time the regiment should be again designated for service abroad. The question of barrack capacity has also necessarily been given consideration in this connection, care being taken to avoid, so far as practicable, demands for additional barrack accommodations in advance of the time in which the same can be provided with the means at the disposal of the Department. Department commanders in the United States were accordingly informed about July 1, that, with certain exceptions, infantry companies need not be maintained beyond a minimum effective strength of about 65 men per company, and it has been the aim to keep troops of cavalry in the United States at an effective strength of only about 70 men each. In the case of regiments and battalions utilized at depots of recruit instruction for the double purpose of supplying a garrison and providing for the instruction of recruits, it has been deemed sufficient to provide only 20 or 25 privates to a company,

giving as a maximum 43 men to a company of infantry and 49 to a troop of cavalry. At present a total of 3 regiments of infantry and 2 squadrons of cavalry are utilized for the purposes indicated at depots of recruit instruction.

#### THE RECRUITING DETAIL.

A new detail of recruiting officers for a tour of two years was made to date from November 1, 1901. Officers for this detail were nominated by the commanding officers of the infantry and cavalry regiments from officers who had seen long service with their regiments. The 45 officers thus supplied were supplemented later by the detail of 13 officers from the Artillery Corps, which in numbers is equivalent to 13 regiments. The additional officers needed from time to time have been secured by special details, selection generally being made of officers invalidated home from the Tropics, or who for other reasons were not available for regimental duty. Taking the period from October 1, 1901, to October 1, 1902, the largest number of officers detailed for the general recruiting service was 78; the smallest number was 69, that being the number October 1, 1902.

#### RECRUITING STATIONS AND TERRITORY CANVASSED THEREFROM.

In October, 1901, there were 104 central recruiting stations in the larger cities; there are now 96 such stations, about half of which are permanent, the remainder being maintained as recruiting centers so long as necessary for an effective canvass of surrounding territory. In addition, many temporary stations are opened from time to time and visited by officers stationed at the recruiting centers when necessary to make enlistments. In this manner the same officer frequently conducts two or more central stations and also visits, under proper orders, many temporary stations within his recruiting territory. Recruiting officers have instructions, in making such canvass, to exercise all possible economy, carefully guarding expenditures for mileage, transportation, etc., and to see that results are accomplished commensurate with expenditures involved. The smallest number of cities and towns canvassed during any one month by these general recruiting officers was 194; the largest number was 248.

During the year the efforts of officers of the general recruiting detail have been supplemented by enlistments at all military posts by officers detailed by the post commanders, and measures have been taken to increase these post enlistments by a canvass, from posts, of contiguous territory, under orders of post and department commanders, in a manner closely analogous to the canvass made from central stations of the general recruiting service. In this case, however, little additional expense is involved, as the recruiting officer and surgeon are sent out from the post to make examinations and enlistments, and the recruits are sent into the post immediately upon their enlistment. The largest number of towns canvassed by recruiting officers from posts was 36; the largest number of cities and towns visited during any one month by recruiting officers, from both recruiting stations and posts, was 284; but in addition to these many other towns were visited by enlisted members of recruiting parties, distributing recruiting posters, circu-

lars of information, etc., and citing desirable applicants to some central station.

## RECRUITS FOR TROPICAL SERVICE.

All organizations sailing for the Philippines have been filled with recruits prior to their departure from the United States, the number of recruits thus supplied between October, 1901, and August, 1902, to organizations about to sail, as indicated, being 1,083. During the year ending September 30, 1902, 5,844 recruits were forwarded to organizations already in the Philippines, and 309 recruits were forwarded to Cuba and Porto Rico for organizations serving therein.

## PRECAUTIONS AGAINST THE SPREAD OF DISEASE.

In February, 1902, instructions were given to recruiting officers to adopt all practicable measures to the full extent of the facilities at their disposal to prevent sending recruits to rendezvous or posts either with the germs of disease or in an uncleanly condition rendering them subject to attacks by disease or liable to transmit the germs of disease to others, and providing that any clothing worn by recruits before enlistment and taken by them to rendezvous and posts must first be thoroughly disinfected. About the same time instructions were given for isolating recruits received at rendezvous whenever any suspicion arose of their having been exposed to possible contagion, and for the adoption of all practicable measures by the commanding officer and the medical officer for guarding against outbreaks of any contagious disease among recruits and for stamping out the same should it occur.

Arrangements have now been perfected through concert of action by this office, the Surgeon-General, and the Quartermaster-General, after careful consideration and experiment, for supplying to each recruiting station the best adapted disinfecting outfit, with full instructions for its proper use.

## GENERAL RESULTS.

The total number of enlistments and reenlistments in the Army during the fiscal year ending June 30, 1902, exclusive of the Hospital Corps and the Philippine scouts, was 37,461, of which number 28,226 were made at city stations by officers of the general recruiting detail, and 9,235 in the vicinity of military posts and in the field, by officers detailed by their commanding officers.

The enlistments are classified as follows:

For the general service .....	36,252
For the Porto Rico Provisional Regiment of Infantry .....	497
For staff departments.....	712
<b>Total .....</b>	<b>37,461</b>

Of the 37,461 accepted applicants, 32,249 were native born, 4,726 of foreign birth, and 486 were born in Porto Rico; 34,677 were white, 2,284 colored, 14 Indians, and 486 Porto Ricans. The enlistments numbered 26,026 and the reenlistments 11,435. Excluding reenlist-



ments, the percentage of native born among original enlistments was 89.5.

The reports show that the recruiting officers making the 36,749 enlistments embraced in the first two items of foregoing list rejected 87,081 applicants, or 70 per cent of the whole number, as lacking in either mental, moral, or physical qualifications; 1,622 of these were rejected as aliens and 3,828 as illiterates.

The number of enlistments reported for the Philippine Scouts during the fiscal year was 4,079. Under the terms of the law authorizing their enlistment, these are all natives of the Philippine Islands, and with three or four exceptions they were original enlistments, although most of them had previously served as scouts under civil contract.

The number of enlistments and reenlistments for the Hospital Corps during the fiscal year was 1,235, of which number 963 were native born and 272 of foreign birth; 1,173 were white and 62 colored. The enlistments numbered 506, and reenlistments 729.

Including the Hospital Corps and the Philippine Scouts, the aggregate of all enlistments and reenlistments for the Army during the fiscal year ending June 30, 1902, was 42,775.

#### ADJUTANT-GENERAL'S DEPARTMENT.

The legal organization of the Department remains as at the date of last report.

Two officers have since been promoted to the rank of brigadier-general, viz, Col. William H. Carter, July 15, who has been designated as one of the members of the War College, and Col. Thomas Ward (July 22), who retired on the same day. Of the two vacancies created in the Adjutant-General's Department by the promotion of these officers one remains yet unfilled.

At this date the Department consists of the Adjutant-General, 5 assistants with the rank of colonel, 7 assistants with the rank of lieutenant-colonel, 2 of whom are detailed officers, one from the cavalry, the other from the artillery, and 14 assistants with the rank of major, all detailed officers—5 from the cavalry, 2 from the artillery, and 7 from the infantry.

#### CHAPLAINS.

The laws governing the appointments of chaplains in the Army were for many years limited to the simple requirements that a chaplain shall have been a regularly ordained minister of some religious denomination and shall have presented testimonials of his good standing as such, while his new duties were prescribed in general terms.

In view of the fact that the conditions surrounding the army chaplain differ largely from those to which he has been accustomed, it becomes apparent that the measure of his efficiency in the new field of action depends on three important factors, viz, sound health, suitable age, and preparation. While the first of these requirements is indispensable, the last two determine his capacity to become thoroughly imbued with the spirit of military organizations, their conditions and needs, and, further, the care with which he will learn the duties of his new position, which, in addition to religious ministrations, require

him to give instruction to the enlisted men in the common English branches of education.

The act of February 2, 1901, limits the highest eligible age to 40 years. From this limitation the act of March 2 of the same year exempts persons who served as chaplains of volunteers after April 21, 1898, who were under 42 years of age when originally appointed.

In order to more fully ascertain the qualifications of candidates, the War Department, November 4, 1891, prescribed the scope of examination as to extent of school, academic, collegiate, and theological education. (Appendix, pp. 88-89 not printed.)

It is confidently expected that candidates who successfully pass the prescribed physical and mental examination will form a body of zealous, intelligent chaplains, keenly alive to the demands and duties of their position, and prove a powerful factor in further developing and maintaining a high moral and religious tone in the American Army.

#### COMBINED ARMY AND NAVY MANEUVERS.

The change incident to the loading of the guns at the breech instead of at the muzzle has been revolutionary in its effects and has placed the art and science of artillery on the highest plane of development, necessitating in its application the most advanced and intricate appliances of machinery, steam, and electricity. In this connection it may be remarked that as late as the breaking out of the Spanish-American war our artillery officers, except in theory, were strangers to the modern high-power guns.

January 9, 1902, the Secretary of War, through the Secretary of the Navy, invited the cooperation of the Navy in combined maneuvers, to take place at some time during the year in the artillery districts of New London and of Narragansett, in order to test the efficiency of the matériel and the training of the personnel of the artillery garrisons stationed in the proposed theater of operations. It was at first contemplated to undertake operations embracing a force of all arms, to be landed at some point on the coast, but, the full scheme not being found practicable for various reasons, it was finally determined to confine the scope of the maneuvers to the fleet and to the artillery of the forts in the districts named, the maneuvers to begin on Saturday, August 30, and terminate on the following Saturday, September 6.

The forts in the artillery districts of New London comprise Forts Mansfield, Wright, Michie, and Terry, while those in the artillery district of Narragansett embrace Forts Rodman, Adams, Wetherill, and Greble; that is to say, 9 posts on the Atlantic coast of the United States, the entire defense of which is composed of 45 forts.

The garrisons of the above-named forts were to be mobilized on a war basis, and to secure this end, 24 companies were detached from other posts in the Department of the East and concentrated in the two artillery districts above named, making, in all, 34 companies of sea-coast artillery taking part in the maneuvers. The regular artillery troops were reinforced by 3 companies of engineers from Washington Barracks, Signal Corps men, the First Massachusetts Heavy Artillery, 2 companies of the Connecticut Heavy Artillery, and the New York and Connecticut Signal Corps.

Maj. Gen. John R. Brooke, commanding the Department of the East, having been placed on the retired list, September 21, 1902,

Maj. Gen. Arthur MacArthur, commanding the Department of the Lakes, was designated to take temporary command of the first-named department and was placed in immediate charge of the land defenses in the combined army and navy maneuvers.

A careful examination of the many highly interesting and valuable reports made by officers who participated in the combined maneuvers resulted in the presentation of the following suggestions as deserving serious consideration:

*Generating plants at posts.*—The maneuvers have demonstrated the necessity of reserve power not only for present installation, but also to meet requirements of new ones. Both efficiency and economy demand the construction at each post of large, central generating plants provided with suitable storage batteries well protected from hostile fire.

*Searchlights.*—Much remains to be learned by the Army in their use; searchlights drill and control are second in importance only to fire control; all lights, both searching and illuminating, should be under the direct control of the fire commander, and to avoid interference, certain limited sectors of water area assigned to each searchlight; experiments should be conducted in a fully equipped artillery to determine the best methods of locating, controlling, and operating searchlights; at the present time the Artillery Corps does not contain the skilled men necessary to run the large number of searchlights required for the efficient use of the guns at night.

*Observing instruments.*—It is deemed important that all future contracts for the supply of all observing instruments be made to include delivery at place of destination, and setting up and adjustment at their permanent positions, and that they should invariably be finally inspected and accepted only after such setting up and adjustment.

*Telautograph.*—A general test of this instrument seems desirable in order to test its positive value.

*Telephones.*—The number of telephones in use at a commander's station involves a great deal of confusion and there is great need of simplification in this respect.

*Plotting boards.*—The effort to have one invariable type is thought a mistake; type sizes of plotting boards are highly desirable.

*Night drills.*—The number of these drills should be increased and fire commanders always required to be present thereat. This is deemed of first importance, as the majority of attacks on forts would probably be made at night.

*Practice ammunition.*—For the purpose of experimental investigation necessary to the evolution of an entirely satisfactory fire-control system, the supply of full service charges of ammunition for practice firing at movable targets should be quadrupled for, say, the next five years.

*Signal observers.*—These men should be imparted sufficient nautical knowledge to enable them, when on duty at outposts, to identify with certainty every war ship seen by them.

*Artillery experts.*—The present number of electrician sergeants, limited to a maximum of 100, is insufficient, and their established rate of pay will not secure, or at least retain, men qualified to maintain and operate the scientific instruments and complex electrical appliances pertaining to fire control. These demand for their care and use the services of a class of men that can not be found in the ranks. The

employment of civilians fails to meet the requirements, as the men employed must be subject to military authority and discipline. The very nature of their duties makes them a part—a most important one—of the combatant element, and they must therefore be included in the permanent military establishment. For this purpose a corps of artillery experts is necessary to embrace steam engineers, machinists, and electricians. Such a corps could readily be organized by expanding the detachment of post electrician sergeants to not less than 400, changing the name, and classifying the men in three grades, the highest of which to receive not less than \$75 per month and the intermediate grade \$50. As this corps is intended absolutely for coast artillery, it should be made an integral part of the artillery arm, the men composing it to be assigned as directed by the Secretary of War.

*Artillery districts.*—The staff of a district commander should embrace an acting ordnance officer, assisted at the various posts in the district by an ordnance sergeant, to be made responsible for the proper supply and care of all the surplus ordnance stores in the district, which should be made the unit instead of the fort, as at present. This latter point has been partly recognized by the Ordnance Department in its establishment of an ordnance machine shop for the use of each group of neighboring forts.

A signal officer should likewise be assigned to each artillery district to supervise the care, maintenance, and repair of all electrical instruments and appliances, such details to be made from the artillery, and, to offer some incentive to the officer detailed, carry the rank and pay of the higher grade. After four years' service on such detail the officer to return to the artillery corps, when he would be fully familiar with the electrical methods of communication, fire control, etc.

*General remarks.*—The maneuvers have proved that the rank and file of our Army can be depended upon in every emergency; that apparently impossible tasks can be accomplished under the spur of necessity, and that there is an immeasurable gulf between practice and theory. The lessons learned by both officers and men were of more practical value than years of ordinary garrison routine and instruction. The target practice held in connection with the maneuvers was productive of excellent results, although conducted under trying conditions, due to rush and unreadiness. It was the first seacoast practice ever undertaken in the United States on anything like a service basis, and such practice should be made a prominent and indispensable part of all future maneuvers. A limited number of Ordnance, Engineer, and Signal Corps officers should be detailed at important artillery forts during the period of target practice to observe action of the material, under service conditions, provided by their respective departments.

At the forts mentioned troops had been concentrated in sufficient numbers to man the guns during the maneuvers. The garrison consisted of companies brought from different parts of the seacoast, some having had previous acquaintance with the armament, others very little, if any. The association and discussion incident to such concentration must be regarded as an important educating factor.

In no other way than by such maneuvers in time of peace can so good an opportunity be afforded for observing the defenses of each locality, for concerted training of the personnel, for testing material and methods, and for intelligent criticism in general. It is therefore

strongly recommended that similar exercises be conducted annually and made to embrace each year a new theater of operations, so that the benefit may be shared by the different garrisons in the several fields of defense.

In future rules it is suggested that the number of points required to reduce defenses should conform more nearly to actual experience in attacks on fortified places.

It is thought that a more successful and intelligent use of ordnance material by the troops would be obtained by publishing to the artillery the results of new experiments as soon as made, and the description of new devices. The need of a complete list of ordnance supplies, kept up to date, is manifest.

Some system should be devised by which the artillery defense of forts would not be rendered helpless by a heavy fog.

The wireless work, as conducted by the Signal Corps, established the fact that wireless telegraphy is an important factor in the defensive operations of an artillery district, increasing by many miles the extreme distance at which the enemy's approach can be detected and his ships located, thereby affording to the artillery commander ample time in which to perfect his own offensive operations.

The conviction expressed by the commanding general in charge of the land defenses "that every officer and enlisted man of the Army and of the National Guard who took part in the maneuvers entertains a feeling of admiration for the splendid manner in which the naval part of the programme has been conducted, whereby the confidence in and affection for the sister service, ever constant, have been renewed and emphasized by this exceedingly agreeable association in prosecuting professional work of great importance to the nation," voices a sentiment heartily concurred in by the entire Army.

#### ARMY MANEUVERS AT FORT RILEY, KANS.

While the combined Army and Navy maneuvers in two of the artillery districts during the week ended September 6 tested the efficiency of the material and the training of the garrisons of the several forts in those districts, in like manner the lines of maneuvers carried out on the reservation of Fort Riley tended to the greater instruction and efficiency of the cavalry, field artillery, and infantry organizations who participated therein.

The troops assembled at Fort Riley and organized as a division under the command of Maj. Gen. J. C. Bates, the commander of the Department of the Missouri, consisted of the following organizations:

*Regular Army.*—First Battalion of Engineers; First and Second squadrons, Fourth Cavalry, and the Third Squadron, Eighth Cavalry; Sixth, Seventh, Nineteenth, Twentieth, and Twenty-eighth batteries, field artillery; Sixth, Eighteenth (11 companies), and Twenty-second Infantry, detachments of Signal and of Hospital Corps.

*National Guard.*—Two batteries of artillery and a brigade of Kansas infantry, and separate battalion of Colorado infantry.

The field exercises prescribed were in no sense maneuvers as compared to those of large bodies of troops brought together in Europe for that purpose, and which the entirely different conditions existing in this country would make undesirable to simulate. European maneuvers are, in fact, temporary schools of instruction for general officers and members of the general staff, while the entire scheme of the exercises at Fort Riley simply contemplated instruction in field operations, from outpost and patrol duty to battle maneuvers of a division.

Although interfered with for some days by a violent wind and rain storm, the exercises were satisfactorily performed and proved highly instructive to all participants.

Invitations had been extended to all the governors of the States and Territories, and it is greatly regretted that the expense attendant upon the transportation of National Guard troops to the encampment (exceeding, in the majority of cases, the low condition of State appropriations available for the purpose) prevented a larger attendance; but the lively interest taken in the proposed exercises was evidenced by the presence at the camp of officers, detailed as State representatives, from twenty-two States and two Territories.

When Congress shall take action on the subject of acquisition of necessary land for the establishment of large camps for annual military exercises, and the bill for the greater efficiency of the militia shall have become a law, there is no doubt that the enlarged instruction acquired, yearly, at those camps by both the Regular Army and the militia will prove of incalculable benefit to those twin branches of the land defensive power of the United States.

#### ARMS IN THE HANDS OF THE MILITIA.

In order to ascertain with some degree of accuracy the number and kind of arms now in the possession of the State militia, a report on the subject was requested from the several States and Territories, and but few of them have not yet reported.

The information elicited in these reports appears in tabulated form in the subjoined statement. It will be noted that with the exception of less than 4,000 United States magazine rifles, caliber .30 (the arms in the hands of the regular infantry), the present armament of the several National Guards embraces five different kinds of obsolete rifles, viz, the Springfield (two calibers), the Lee, the Winchester magazine, the Krag-Jorgensen, and the Remington-Lee magazine.

While by far the greatest number of rifles is of the Springfield pattern, the caliber of those arms is not uniform, the National Guard of North Dakota having 410 rifles of caliber .45 and 220 others of caliber .50. This is also the case with the Georgia militia. Five of the Illinois regiments have the Springfield and three are armed with the Krag-Jorgensen.

With the exception of less than 400 United States magazine carbines, the other carbines in the hands of the cavalry are the Springfield (two calibers) and the Krag-Jorgensen.

Of revolvers, the greatest number is the regular Colt, caliber .38, but a few are of caliber .45, and nearly 500 are the Smith & Wesson.

This heterogeneous collection of obsolete arms is a very serious detriment to the efficiency of the entire National Guard, which, in organization, drill, instruction, etc., assimilates closely to the Regular Army, and should be armed with the same arms as the latter. If called into service under this deplorable condition, much trouble and vexatious delays are involved in providing the different kinds of ammunition required and in urgent or unforeseen contingencies may lead to disastrous results.

In briefly presenting, as above, one of the most important and pressing needs of the militia, it is urgently recommended that the serious attention of Congress be invited to this subject, and that the necessary legislation be invoked.

Master H. W. Daly, quartermaster's department, and both trains under the charge of Capt. Robert J. Duff, Eighth Cavalry, who was directed to cause the conditions to be as nearly equal for both trains as practicable, and to report the result. At the end of the fifth day the Moore pack-saddle train was obliged to give up. This result was fully expected, as the Moore pack saddle is fundamentally wrong in principle and can not be administered with average loads so as to keep the animals' backs in condition, either by experts or nonexperts. Many long marches in the West and in Cuba have, however, demonstrated the efficiency of the Aparejo when used by experts.

It is suggested that in tropical climates the addition of canned milk would be a most welcome one. Its admirable keeping qualities recommend it as a component of the ration, the losses of certain kinds of it being practically nothing. It would of course add to the cost of the ration if no reduction was made in other components. It is suggested that dried fruit can safely be reduced 50 per cent, and other components could be selected for reduction to make up in part, if not entirely, the increased cost of making milk an article of issue. Aside from its consideration in connection with milk, the dried-fruit issue should be reduced or savings allowed on it. This recommendation pertains only to stations where fresh fruits are obtained.

Maj. Gen. Robert P. Hughes, commanding the Department of California, reports: A commodious and well-equipped hospital was maintained at the Presidio of San Francisco, Cal., under the able and careful management of Lieut. Col. A. C. Girard, deputy surgeon-general, into which the sick from the Division of the Philippines were welcomed. The records show that this establishment had 139 patients July 1, 1901, and received during the fiscal year 4,551 patients, and that there are now at present 402 patients. The average number of patients in the hospital at any one time was 480. It was not considered advisable to return patients to the Philippines directly, but upon being found qualified to do duty the medical authorities considered it wise to discharge the sick belonging to the Division of the Philippines into some organization here, and so keep them under observation for at least three months prior to definitely deciding upon their fitness for returning to a tropical climate. In order to carry this idea into effect, companies of convalescents were organized at the Presidio, San Francisco, Cal., which were afterwards transferred to Angel Island and Benicia Barracks, Cal.

#### DISCHARGE CAMP.

It was found that the discharge of large numbers of enlisted men from the Division of the Philippines was the cause of much annoyance through unfair dealings of small traders and agents from the city of San Francisco and that disturbances were of too frequent occurrence. For this reason it was decided to establish a camp for this class of arrivals from which all business men and agents would be excluded. Such a camp, known as the Discharge Camp, was established on the east shore of Angel Island. This camp was established November 1, 1901.

A general railway ticket office and an office of the Wells-Fargo Express Company are located in the camp, in order that the men on discharge can secure tickets in the camp direct to their homes and money orders payable only to themselves for such money as they may wish to secure in that way. The number of men paid in this camp up to June 30, 1902, was 10,840.

#### RECRUIT CAMP.

A recruit camp has been maintained at the Presidio of San Francisco, Cal., during the year, to which recruits were sent from the Western States of the Republic.

	Recruits.
On hand June 30, 1901 .....	187
Joined during—	
July, 1901 .....	296
August, 1901 .....	423
September, 1901 .....	214
October, 1901 .....	172
November, 1901 .....	1,288

Joined during—Continued.	Recruits.
December, 1901 .....	2,086
January, 1902 .....	1,490
February, 1902 .....	2,422
March, 1902 .....	822
April, 1902 .....	425
May, 1902 .....	314
June, 1902 .....	297
<b>Total</b> .....	<b>10,416</b>
<b>Assigned to various organizations during the year</b> .....	<b>8,977</b>
<b>Discharged for disability during the year</b> .....	<b>89</b>
<b>Discharged for other causes during the year</b> .....	<b>63</b>
<b>Died during the year</b> .....	<b>14</b>
<b>Deserted during the year</b> .....	<b>533</b>
<b>Total loss during the year</b> .....	<b>9,676</b>

Remaining in camp June 30, 1902, 742 recruits.

The losses in this camp by death are above the normal, but such a condition may be attributed to the fact that the great mass of recruits are young, away from former social influences, and are somewhat reckless. The losses by discharge are too numerous, and it is expected that with the reduced activity in recruiting greater pains will be exercised in the examination of applicants, and the probationary period will be enforced.

Efforts are being made to secure better shelter for recruits coming to this depot, and to secure a more regular and effective system of instruction.

#### SUPPLIES.

The depots at Honolulu, Hawaii, are equipped and supplied in readiness to give prompt succor and relief to troops on transports entering that harbor in need. The supplies are limited to such quantities as will secure relief to troops and crews of transports until further aid can be procured from San Francisco, if it is found necessary to do so.

#### INSTRUCTION.

There is some difficulty found in carrying out the most vital point of the infantryman's instruction, viz, rifle practice. Prior to my arrival in the department, firing on the range, which has been in use since 1898, had been stopped on account of the objections of the owners of the land behind the targets. The ball stop was on foreign territory and not of sufficient height to stop all the balls, and the owners of the land on which overshots fell very naturally objected.

Efforts have been made and are still being made to find a suitable site for service range firing, and in the meantime an effort is being made to provide a range for short-distance firing on the Presidio reservation, over which the recruits may be taught to use the rifle properly and given all the theoretical instructions, so that a little practice at service ranges will qualify them for actual service.

#### INSPECTIONS.

The inspector recommends that the certified signature of a discharged soldier should appear upon his discharge certificate as a means of identification; that special provisions should be made for enlisting bakers, for, as matters now stand, he finds "in many garrisons it is impossible to find competent bakers;" that "time books" should be systematically kept by all disbursing officers employing laborers, etc. There is obvious merit in these recommendations.

#### POST SCHOOLS.

It will be noticed that at Forts Mason and Alcatraz the daily attendance was exceedingly small, being three and seven, respectively. Under the regulations one school-teacher is under pay all the year through. If the daily average attendance is not sufficient to justify the payment of this one teacher, as would seem to be the case in the two instances above mentioned, the provisions of paragraph 357, Army Regulations, should not obtain.



Brig. Gen. Frederick Funston, commanding the Department of the Colorado, reports:

## DESERTION.

Per cent of average enlisted strength deserting:

1899-1900.....	3.20
1900-1901.....	7.50
1901-1902.....	11

It is therefore plain that there has been a deplorable increase of offenses in general and of desertion in particular. In my opinion there are two principal causes for this state of affairs: First, resentment to unaccustomed limitations and restrictions felt by men returning from field service to the monotony and routine work of garrison life; second, the abolition of the canteen feature of the post exchange. Since this action was taken saloons of the lowest type have been established just outside the boundaries of the various reservations; their proprietors are, in almost every case, unprincipled scoundrels who leave nothing undone to debauch the soldiers and obtain their money. Being in all cases outside the limits of any city the proprietors of these resorts are subject to no municipal police regulations and sell liquor regardless of hours and whether the buyer is already intoxicated or not. Gambling is universal in these "dives," and they are frequented by dissolute women. The soldier whose desire for a drink would ordinarily be satisfied by a few glasses of beer in the canteen of the post exchange goes to one of these resorts and does well if he escapes before he has spent or gambled away all his money, overstayed his leave, or engaged in an altercation. As a rule the local authorities regard the existence of these places with indifference or approval, as it causes the soldier to spend his money in the community. The efficiency of the Army or the ruin of a good soldier is nothing to them. There can be no reasonable doubt that most of the trials by general courts-martial and summary courts, at least so far as this department is concerned, are directly traceable to this cause. Since I have had command here there has taken place the ruin and degradation of several noncommissioned officers of long service and fine record. In short, the recent legislation by Congress on this question, so far as this department is concerned, has had no effect except to lower the discipline of the Army, ruin scores of good soldiers, and fill the pockets of a lot of saloon keepers, gamblers, and prostitutes.

## BARRACKS AND QUARTERS.

The inspector-general of the department reports that as a general rule the barracks and quarters at most posts are not in as good repair as they should be, owing to the limited allotments made for this purpose, probably due to the fact of previous small garrisons. Most of the barracks are only suited for housing 60 men. Should a garrison be occupied by a number of organizations equal to the number of barracks the latter would be overcrowded and insanitary. At present this is generally avoided by two organizations occupying three barracks. He also reports that bathing facilities for enlisted men at most posts are not adequate. For instance, Fort Logan, Colo., a comparatively modern post, has an allowance of 3 tubs for a company of 80 men. The lavatories generally are not of sufficient capacity.

When it is considered that all public buildings owned by various departments of the Government, transports and naval vessels, and almost all towns and villages in the vicinity of outlying posts, are lighted by electricity, it seems that the Army is very antiquated in its lighting of military posts. When the original cost, transportation, and handling of oil is considered, to say nothing of the cost and transportation of the lamps, wicks, and chimneys, the insanitary condition produced in barracks by the large consumption of oxygen and the production of carbonic-acid gas by oil, and cost of labor in cleaning and calcimining barracks and quarters, etc., it certainly would seem to be economical for the Government to establish electric-light plants or buy electric lights furnished by private corporations.

Brig. Gen. George M. Randall, commanding the Department of the Columbia, makes the following suggestions and recommendations:

## VANCOUVER BARRACKS.

In case the War Department decides to carry out the contemplated plan of enlargement of this post to accommodate a regiment of infantry and two field batteries, it

would be well to have a special inspection of the post made by a board of officers to determine what buildings are worth repairing and to prepare a general plan of reconstruction and enlargement. The reservation contains 639.2 acres. It has no suitable range for long-distance infantry fire or light-artillery practice. A board of officers has been detailed to select, if possible, a proper range within marching distance of the post, with a view to its rental temporarily until an appropriation can be secured from Congress for its purchase. The erection of a crematory at this post is most necessary in order to properly dispose of the stable manure and other refuse.

## FORTS STEVENS, COLUMBIA, AND CASEY.

These posts constitute the artillery district at the mouth of the Columbia River.

The question of a water supply for Stevens has been a troublesome one. My present belief is that the safest plan would be to pipe the water from the Lewis and Clarke River, a distance of 13 or 14 miles. This would cost perhaps \$80,000 (estimated by the post commander), but considering that about \$40,000 have been already expended upon wells, tanks, etc., without satisfactory result obtained or in prospect, the expense would seem to be justified. An abundant supply of good water is considered absolutely necessary for a permanent post of this character, especially in the event of war, and the system of bringing it from Lewis and Clarke River would insure this, and at a small expense for maintenance after once established. The water now in use at the post comes partly from wells and partly collected in tanks from the rain. That from the wells is condemned as unfit for use.

## PUGET SOUND.

The artillery district of Puget Sound embraces at present the posts of Flagler, Casey, and Worden, the last two named having been formally transferred to the district commander by the engineers about the 15th of June.

At all of the coast artillery stations above mentioned in the two districts the engineer work on emplacements is completed for the contemplated armament so far as known, with the exception of Fort Casey, which is well on toward completion. The armament at the different points is in various stages, not being entirely complete at any post. The same may be said of the torpedo and mining systems. Casemates have been completed at some of the posts, and material is on hand for installation. Electric lighting of batteries and telephone connections are partially established at Stevens and Columbia, but none as yet at the posts on Puget Sound. The water and drainage systems of the batteries are generally good. The guns, carriages, material, and equipments were in excellent condition where there were troops to care for them. The works at Bean and Middle Points are understood to be progressing and will probably require garrisons in about a year.

The Army being composed at present to a large extent of recruits and untrained men, I recommend an increase in the allowance of ammunition for small arms to 500 rounds per man per annum.

It is also recommended that company commanders be empowered to debar men who fail during an enlistment to qualify higher than "third class" from the privilege of reenlistment, by entering upon their discharge certificates "Not suited to the service by reason of inability to shoot."

There was a considerable increase over the preceding year in the ratio of trials by court-martial to the average of enlisted strength. This is believed to be due in part to the large number of recruits, but in part also to the abolition of the sale of beer at post exchanges. The number of desertions has also been large, and the largest from posts whose locations would seem to lead to contentment. The smallest percentages were from the posts in Alaska. As remedies, increased care in making enlistments, more diligence in the pursuit of deserters, and severer punishments are suggested. I recommend that the reward for capturing a deserter be increased to \$50. Facilities for amusement and recreation should be increased and improved and every encouragement given to the men to make deposits with the paymaster. The pay department is entitled to credit for giving special attention to this last subject in the particular case of making provision for deposits at posts in the interior of Alaska, where the money for the monthly payments was advanced by the Northern Commercial Company.

I recommend legislation enabling officers on the active list to make deposits from their pay with the paymaster in a manner similar to that now authorized for enlisted men.

The following remarks of the inspector-general of the department bearing upon this subject are quoted as offering a strong argument in favor of such legislation:

"It is a bad thing for an officer to be engaged in or identified with investments or

business in the localities where he serves, and further than that he is employed by the Government to devote his whole time and abilities to the Government service, and at retirement is provided for the rest of his life; but at the same time he should have an opportunity and inducements to save his money to provide for his family, and such a system of deposits would, I think, obviate many of the cases of destitution in the families of the officers who die in the service."

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Brig. Gen. W. A. Kobbé, commanding the Department of Dakota, reports that—

Discipline and instruction are good, because, as a rule, officers are capable and painstaking. Generally speaking, the soldier is what his officer makes of him. A gain in efficiency would follow if officers remained single until rank, pay, and allowances enabled them to provide against common exigencies of service.

The battalions, Eighth and Fourteenth Infantry, and the two troops First Cavalry, transferred to other departments, were fitted for any kind of service. This is true also of the Twenty-first Infantry, after recent insular service, and is rapidly becoming true of the recently organized Thirteenth Cavalry under efficient management.

Paragraphs 267, 270, 271, Army Regulations, and 179, Infantry Drill Book, basing discipline and instruction on squads, are very valuable if properly observed. I believe the system might be extended to provide for the training of a permanent squad as scouts in each company and troop, providing thereby a necessary body of expert special troops when the regiment is consolidated in whole or in part for active service.

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Maj. Gen. John R. Brooke, commanding the Department of the East, makes the following remarks and recommendations:

Attention is again invited to the fact that apparently no provisions have been made for the land defense of our most extensive fortifications. This has been emphasized in preparing plans for the coming army and navy maneuvers. As fortifications are made stronger the necessity for consideration of the subject of land defense becomes more pronounced. Where such strong fortifications are erected that the enemy can not hope to force a passage in his ships, his only recourse will be to capture the defenses through land attacks. No forts or earthworks have been constructed to aid in repelling such attacks and, so far as I know, no plans have been made looking to the consideration of this subject in the near future.

Attention is again and finally invited to the urgent need of providing more suitable quarters for officers and barracks for enlisted men at the seacoast posts throughout this department, and especially to the need of quarters and barracks at the various Southern posts suitable to location and climate. All posts should have sufficient accommodations for the troops necessary to form an adequate garrison for them. At this time the present restricted strength of the seacoast artillery does not give at any post one relief at the guns. The reservations should also be made more attractive and the fortifications themselves beautified and improved by the growing of grass upon them. It has been found by actual test that the shifting sands which surround most of the Southern seacoast defenses may be controlled and retained in place by the planting of grass. This method of controlling these sands not only beautifies the post but is very desirable from an economical point of view. As it is now the sand blows into the working parts of the guns and carriages, damaging them and seriously interfering with their easy manipulation, and dri s into the fortification, requiring constant attention and care by the troops, whose time is already occupied by other pressing duties.

The quartermaster dock and forage shed at San Juan, P. R., should be retained and not given over to the island authorities. Should this dock be given up it will become necessary to obtain ground elsewhere for the same purpose for which this is used, and probably at great expense.

The shops, quarters for employees, and the corral at San Juan were hastily and flimsily constructed for the immediate and pressing needs of the troops that first went to Porto Rico. They should now be replaced by others of a permanent and substantial character, either on the site now occupied or preferably on one equally good, but the ownership of which shall be unquestioned.

The exorbitant charge levied by the city of San Juan for water used by the army could be removed by the erection of a distilling plant with sufficient extra power to supply electric current and ice plant, and the introduction of a secondary water system, using salt water, for policing purposes.

The chief paymaster calls attention to the inadequacy of the allowance of commutation of quarters. The present allowance was established many years ago, under entirely different conditions from those that prevail to-day, and rents having more than doubled in all our large cities since it went into effect, officers with a moderate salary serving therein have the greatest possible difficulty in making both ends meet.

The matter of allowance of quarters is also spoken of by the chief paymaster. I concur in his remarks that "a brigadier-general is now allowed five rooms as quarters, or commutation therefor, at \$60 per month." I do not believe that this sum would cover more than one-third the rent he would be forced to pay if stationed in New York City. In this connection I desire to say that the allowance of rooms having been made many years ago is not adequate to the present necessities, for it is seen all about us that the houses occupied by people who were wealthy years ago are now entirely too small and uncomfortable for people who have in these days an income equal to that of the former occupants. An increase of the room allowance is recommended to meet the conditions prevailing throughout the country. Starting with an allowance of two rooms for a second lieutenant, it seems only reasonable that each higher grade should be allowed an additional room over the grade below.

The chief paymaster also makes the following recommendation:

"It has always seemed to me that marksmen and sharpshooters in the infantry and cavalry arms of the service should receive additional pay, say \$1 per month for the former and \$2 for the latter. Certainly a soldier who can hit the object aimed at with his rifle is more valuable to the Government than one who can not. A small increase of pay would, in my judgment, stimulate effort in this direction and do much toward improving the marksmanship of the Army."

There are now in the coast artillery a large number of young officers who have come into the service under the provisions of the act of February 2, 1901. These young officers, while they have had in most cases service in the field or in garrison, have had no experience whatever in the handling of the rapid-fire and large guns with which our present fortifications are armed; nor have they had the necessary technical education that will enable them to take hold of the duties they are now called upon to perform with the grasp of the conditions that exist and aptitude with which to readily fit themselves for onerous duties that are so essential to the modern artilleryman. It is absolutely necessary therefore that these young officers should secure a fundamental training that will enable them to undertake and carry on their new duties understandingly. As long as they are compelled, through the necessities of the case, to perform the various post staff duties they can not have time to devote themselves to technical study. These routine post duties, with which they are almost as unfamiliar as they are with the artillery duties proper, take all the time that they should be asked to devote to hard mental and physical work. It is recommended that several of the well-equipped posts be utilized for the special training of these officers in courses of study similar to those at the Fort Monroe school, as that school is not large enough to accommodate all these officers at once nor to give them the necessary instruction within a reasonable time.

As was the case in 1866, it will be necessary to train the young officers, as well as the young soldiers, in their several duties. This remark applies especially to the artillery, the armament of which has been revolutionized within the last few years, and it will require time to evolve the best methods necessary to make it the success we all hope for.

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Maj. Gen. Arthur MacArthur, commanding the Department of the Lakes, reports: Libraries and reading rooms have been in operation at all the posts, but the supply of books is inadequate. For purposes of instructive reading a supply of military books is needed; for entertaining reading a good supply of works of fiction should be provided. The books now on hand are mainly old novels, which are being read and reread.

#### INSPECTOR-GENERAL'S DEPARTMENT.

The behavior of the troops at each post was reasonably satisfactory. The offenses committed were for the most part of a minor character, and probably had their origin in conditions incident to the return home from foreign service. The inspector [Col. Ernest A. Garlington] reports the discipline not up to a satisfactory standard. He says:

"The troops are now passing through the period following war, always a severe test to discipline, and at this particular time the difficulty is accentuated by the presence with troops of so many young officers of some active service with rank supe-

coupled with arduous labor, lessens the power of resistance to disease and renders Americans liable to serious illness if not complete loss of health. It is therefore earnestly recommended that a tour of duty, not exceeding three years, be established in order that the clerks may be assured that upon the completion of that term they will be entitled to a return to the United States for duty at some of the department headquarters. It is further recommended that Congress be asked to grant them a reasonable increase of pay while on duty on foreign service.

Recognition is due the services of the temporary clerks who, without the assurance of permanent employment, have shown zealous and intelligent interest in the performance of the duties assigned them. They are the sifted selection from the troops that have served in the division of the Philippines, and their transfer to the classified civil service would permanently secure to the Government thoroughly trained, acclimated, and efficient employees.

SUMMARY OF RECOMMENDATIONS AND REMARKS OF INTEREST CONTAINED  
IN REPORTS OF GENERAL AND GENERAL STAFF OFFICERS.

The following summary of recommendations and remarks on subjects of interest affecting the Army, collected from the annual reports of department commanders and their general staff officers, is submitted for the information of the Secretary of War and the Lieutenant-General of the Army:\*

Department of Cuba (discontinued May 20, 1902).

A large number of cavalry officers recommend that greater care be exercised in the enlistment of troops for that arm of the service, particularly now that the emergency for men has passed. As an inducement to intelligent men to enlist for the mounted service, they think cavalry privates' pay should be at least \$2 more per month than for infantrymen. They advance the reasonable claim that the duties of a trooper are more arduous; that he has greater wear and tear on his clothing; that his laundry bill is greater, particularly in a warm climate, and his care of horses and equipments is particularly arduous, while the foot soldier, especially the infantryman, has nothing but his rifle and belt to look after. In this connection it is suggested that the rate of pay for men by enlisted terms be changed for the first six years as follows, and that it remain at present for succeeding years:

	First three years.			Second three years.		
Pay of private at present .....	\$13	\$13	\$14	\$15	\$16	\$18
Pay as recommended .....	13	13	13	18	18	18

This change, it is thought, would be an inducement to reenlistment.

It is claimed generally by officers that there is a surplus of heavy clothing issued to recruits leaving rendezvous for regiments in tropical climates. Especially is this true respecting the overcoat, which, if brought, should be treated as the ordnance kit, i. e., turned in to depot. This would lessen the amount of clothing charged on the clothing and descriptive cards. The overcoats turned in could, if necessary, be cleaned at the soldier's cost and returned to rendezvous for reissue at reduced rate. It is considered unfair to the recruit to make him purchase an article for which he will have no need and which, in a tropical climate, rapidly deteriorates when stored.

Dress and over coats made by the Quartermaster's Department are ordinarily cut too narrow in the chest for a well-developed soldier. Several officers have mentioned this as a defect that needs remedial action.

\*The report of the commanding general of the Division of the Philippines not yet received.

## MEDICAL DEPARTMENT.

In the movements of troops every precaution has been taken to prevent the spread of infectious diseases by careful inspection immediately before departure and prompt isolation of cases occurring en route. The success attending such precautionary measures was most marked in the transfer of the Twenty-ninth Infantry from Fort Sheridan to San Francisco. An epidemic of measles delayed this movement for some days, and then each section of the train (four in all) was provided with a tourist sleeper, which was fitted up as a hospital car for the reception of cases occurring en route. The sections followed each other closely, and it was found practicable to devote the hospital car on the rear section to developed cases, while another car afforded space for suspected ones. The results were most satisfactory. This epidemic of measles originated at Columbus Barracks and developed at Fort Sheridan in the person of a man sent to the post. Seventy-nine cases developed at Columbus Barracks, with twelve deaths. Thirty-three cases developed at Fort Sheridan, none of which terminated fatally. The chief surgeon of the department [Lieut. Col. Timothy E. Wilcox] is of the opinion that auto-infection with toxins produced by the disease is less likely to occur while the patients are treated in tents. His opinion is based on experience during the great war and seems to be confirmed by results at Fort Sheridan, where tents were used.

The chief surgeon reports that the dental surgeon has found ample room for the exercise of his vocation and that this addition to the medical resources of the Army is highly appreciated. Separate rooms or buildings should be supplied for the dental surgeon at his permanent post.

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Maj. Gen. John C. Bates, commanding the Department of the Missouri, reports:

The military instruction given throughout the Department, while considerable, has not been as thorough and complete as it is intended to make it next year. This is due to the recent return of many of the organizations from hard service in the Tropics with officers and men run down in health, and with many of the former absent for one reason or another, and because other commands have been newly organized and mounted. A tendency has been observed among those returning from foreign service to assume there is no longer the need, formerly acknowledged, of constant instruction to officers and men in all that pertains to our profession, and in some instances there has been lacking that interest in gymnastic exercises so essential to the proper setting up of the men, and to their health and resulting self-reliance and contentment. These conditions improved, however, as the year advanced and as the health and energies of the members of the command became more vigorous in a colder climate. The concentration of the troops in larger bodies also permitted more and varied instruction than was practicable in the small detachments which for a time the necessities of the service abroad demanded, and this increased the interest in the work.

## DISCIPLINE.

The discipline of the command has been good, although there have been more trials by court-martial than should be necessary hereafter under more favorable conditions. Many of these, however, are directly chargeable to the large number of recruits who were required to meet the demands of new organizations and of others which were filled for foreign service. Many desertions are undoubtedly due to homesickness on the part of the recruit and because a considerable number of young men enlist with little knowledge of the life of a soldier, and without mature deliberation. A trial for a few days at a military post is perhaps the best way to determine if an applicant for enlistment will probably make a desirable soldier, and it would also enable the man to decide understandingly if the life will suit him. It is believed to be practicable to apply this test in most instances.

## SUBSISTENCE DEPARTMENT.

The following recommendations contained in the report of the chief commissary are concurred in, viz:

The quality of the articles furnished for issue and sale has, on the whole, been excellent, and the losses occurring by deterioration through climatic influence or accident have been slight, and in most instances the loss has been on potatoes and onions, due mainly to natural causes occurring in transportation and storage at posts, in the vicinity of which none of those vegetables could be procured.

The issuance of meal requests to individual soldiers and detachments, traveling

under orders, has been found to be a great convenience to all concerned, and the results have been far better than under the former system of payment of commutation.

The privilege of purchasing stores and exceptional articles has been liberally used. In this connection it is respectfully suggested that the convenience of purchasers of stores would be enhanced by the addition of the following articles to the list of stores now authorized to be kept on hand for sale to officers and enlisted men:

Razors and shaving soap. We now sell razor strops.

Pens, holders, and points. We now sell ink.

Thread, cotton and linen, white and black; three sizes of each.

Needles, assorted sizes, or, preferably, needle books.

Buttons, trousers.

Envelopes, note.

Paper, note. We now sell letter paper and envelopes only; the smaller sizes would be more convenient.

*Cigars.*—The number of brands to be kept on hand at each post to be increased from two to four, for the reason that desires differ so materially in cigars that two varieties poorly cater to the tastes of the smokers. No wastage or additional expense need be incurred by handling two or more varieties in addition to those now authorized. Toilet soaps could also be increased in the same proportion.

The commissary storehouse at Fort Leavenworth should be considerably enlarged, or a new building for the purpose erected. The great increase in the size of that garrison will make the building now used as a storehouse, sales room, etc., entirely too small.

#### MEDICAL DEPARTMENT.

*Sanitary conditions.*—The water at Fort Leavenworth continues to be the subject of criticism and recommendation by the post surgeon. Several cases of typhoid fever which appeared at that post during the past year were attributed to impure water. Analyses show plainly that the water at Fort Leavenworth is impure; moreover it is very much doubted if the present system will give a sufficient supply for the rapidly increasing garrison. It is thought immediate steps should be taken to establish a new system of waterworks at this post, both as a sanitary measure and as a precaution against fire. A recent chemical examination, in the office of the surgeon-general, of this water revealed the presence of a considerable amount of vegetable matter held in solution, and in this respect the filtered water was as impure as that taken from the taps. The percentage of diarrhea and dysentery patients is greater at this post than at any other in the department.

#### QUARTERMASTER'S DEPARTMENT.

*Posts.*—Building on an extensive scale has been carried on during the year at Fort Leavenworth, and also to a considerable extent at Fort Riley. Both of these posts will continue to serve for an indefinite period as important garrisons, and in addition to housing and permitting of the instruction of a large number of troops there is every reason to believe the Government will be amply rewarded for the money and labor expended upon them by the general information and technical knowledge to be gained by the young officers who will take the course of instruction at the "General Service and Staff College" soon to be established at the former, or at the "School of Application for Cavalry and Field Artillery" at the latter post. I recommend that the liberality which has been shown recently in improving these garrisons be continued, until such conveniences are secured as will permit the schools named to be conducted so as to secure all possible advantages.

In this connection I invite attention to the fact that while a school has been established at Fort Monroe for the special training of artillery officers, and another at Fort Riley for those belonging to the cavalry and field artillery, no similar provision has been made for infantry officers. Indeed, the latter seem to have lost by the newly arranged scheme for instruction, in so much as they formerly had the "Infantry and Cavalry School" at Fort Leavenworth, which apparently is not to be included in the new system of post-graduate instruction. In view of the great importance of the infantry arm, and the urgent need of keeping the officers thereof abreast with modern improvements and ideas, I earnestly recommend that some suitable provision be made for a special school for officers of infantry.

Fort Riley has been selected as a site for yearly autumn maneuvers to be conducted on a scale hitherto unknown in this country. It is admirably adapted to the purpose stated, and surveys have recently been made looking to the proper encampment of about 20,000 men. Because of the size of the reservation and the natural advan-

tages of its terrain for the operations of mounted troops, I am of the opinion and recommend that the cavalry there be increased to two regiments as early as the necessary additional buildings can be erected.

Fort Crook is a handsomely built post. The sanitary conditions are good. It has sufficient barrack capacity to quarter eight small companies and a band, and should be sufficiently enlarged to accommodate a full regiment of infantry. It is proper to state, however, it has not yet been practicable to arrange for target practice at this post with entire safety to the surrounding farmers. It is believed, although not definitely determined, the difficulty can be overcome by building a high embankment immediately in the rear of the "butts," and this plan is now under consideration. If it proves to be impracticable, it will become necessary to buy a proper site for a range. This site should be preferably, but not necessarily, near the post, and it is doubtful if any suitable ground can be had near by at a fair valuation. If located at a distance, practice marches can be combined with target practice, as was done this year when the troops were sent for the latter purpose to the Omaha Indian reservation, 80 miles from the post. It is not thought it will be practicable to hold further target practice on the said reservation, or at least only for a season or two, the land having been allotted in severalty and some of the occupants being disposed to object.

It is recommended only such repairs be made at Fort Niobrara, Nebr., as may be necessary to make the troops stationed there comfortable, and that as early as practicable it be discontinued and its garrison transferred to other stations.

Fort Robinson, including the wood and timber reserve, has a fine reservation of 36 square miles. Our comparatively few large military reservations are becoming very valuable because of the increased size of the Army and the great range of modern firearms, and it would seem to be a wise policy to build in the future so as to utilize the best of these large tracts of land to the greatest advantage. For like reasons Forts Sill and Reno, Okla., are worth continuing; the former has a reservation of 77,920 acres, including the wood reserve. There are, however, about 260 Apache prisoners of war located on it. The reservation at Fort Reno contains 9,493 acres. These two posts also possess the advantage of being located in a mild climate, where troops can be instructed in the open for the greater part of the year. Both need extensive repairs. Reno had better be rebuilt outright, the old buildings being allowed to stand until the new ones, which should be erected on corresponding lines in the rear, are completed.

Fort Logan H. Roots is well built, but small and comparatively unimportant.

Jefferson Barracks, Mo., now garrisoned by eight skeleton troops of cavalry, to be used as instructors for recruits, is not well adapted for mounted troops and should be converted into an infantry garrison.

It is expected work will be pushed vigorously during the ensuing year on the new post to be built near Des Moines, Iowa.

#### APACHE PRISONERS OF WAR.

These Indians were located on the Fort Sill Reservation, Okla., in 1894, and since that date about 28,000 acres of land have been added to the original 23,040 acres comprising the reservation, with a view to the permanent location thereon of the said Indians as well as for military purposes. There is also a wood reserve of 26,880 acres lying about 15 miles from the main reservation, thus making a grand total of 77,920 acres. A bill was introduced, with my approval, in the last session of Congress, recommending that certain grazing lands on the above-stated reservation, including the wood reserve, be rented for grazing purposes for the benefit of these Indians. It did not become a law, and it should, I think, be renewed at the next session, unless it be determined to permanently divide the reservation, so as to assign one part for military purposes, and the other to the Indians. Sufficient land may be assigned the latter from the reservation and the wood reserve combined to give each Indian 160 acres when allotment in severalty becomes desirable, and still leave for military purposes nearly 36,000 acres. It is believed the time has come for some such division. Unless this be done the progress of the Indians will be retarded sooner or later, or military instruction at Fort Sill materially limited. The Indians now have some 3,400 head of cattle, and the herd is materially increasing from year to year, and it is necessary for them to cultivate some of the soil. It will be unfortunate for them if they be allowed to make extensive improvements on ground that may later be permanently assigned to the military.

They are under charge of Capt. Farrand Sayre, Eighth Cavalry, who has displayed great energy, interest and good judgment in the discharge of this unusual duty.

Although the general health of the tribe was much better during the last year than the one preceding, there were 22 deaths and but 12 births. Captain Sayre



assigns the general improvement in health to the fact that the Indians have been prohibited from having dances in cold and inclement weather during the past year. He states the large death rate is due mainly to the fact that a number of infants died of intestinal troubles during the hot weather of last summer.

The progress these Indians are making toward civilization is commendable, and humanity dictates that if they be assigned to a certain part of the reservation, and in consequence thereof have to establish new homes and shops, the Government deal with them with the utmost liberality, in order that they may not be peculiarly injured by the change or their interest in their work dampened. They are no longer, in any sense, prisoners, and many of them have been born since the original number arrived at Fort Sill.

Col. W. C. Forbush, Twelfth U. S. Cavalry, commanding the Department of Texas, reports:

JUDGE-ADVOCATE'S DEPARTMENT.

One of the great difficulties experienced concerning the administration of military justice has been the small capacity of the guardhouses and keeping the different grades of prisoners separate and enforcing prison discipline.

It is believed that the old system of a central military prison (or a number of them) would be better for discipline. At present a deserter is confined at post guardhouse; he gets the same food as the faithful soldier whose duty it is to guard him day and night. The "hard labor" to which he is sentenced generally consists of the easiest and laziest kind of police work during a few hours of the day, while he gets every night in bed. His life is easier than that of the soldier, and the important object of his punishment, viz, to deter others from committing crime, is not realized.

If the present system of confining general prisoners at posts is to be continued a regular prison should be built at some post in the department with a capacity of at least fifty general prisoners.

The increase in the reward paid for the apprehension of deserters makes their capture more certain.

SIGNAL OFFICE.

Complete telephone systems have been established at Forts Bliss, Clark, McIntosh, and Sam Houston, and materials are being furnished for the installation of these systems at Forts Brown, Ringgold, and Camp Eagle Pass.

All posts in the department are supplied with proper signal equipments and stores.

REMARKS AND RECOMMENDATIONS.

PROMOTION OF OFFICERS ON RETIREMENT.

The promotion of colonels on retirement, having forty years' or more service, has been received by the Army with a full sense of appreciation and satisfaction. There was a brief period when the Department hesitated to continue this policy, and in that time several retirements among the colonels took place; and I wish to recommend that Colonel Gilmore, late of the Adjutant-General's Department, and Colonel Williston, late of the artillery, be given the rank of brigadier-general, for they are officers of exceptional ability and merit. Such legislation would be a recognition which their long, efficient, and gallant services demand.

Major-Generals Merritt, Brooke, and Otis rendered exceptional and important military service during the Spanish-American war, and were retired in the rank they would have held had they rendered no war service. Their claims for legislative recognition are but just.

MARRIAGE IN THE ARMY.

The early marriage of the younger officers of the Army, many of whom are entirely dependent upon their pay and allowances for

support, is greatly to be deplored and should be discouraged. A young officer should have but one allegiance, and that should be to the service. Those without private means must necessarily divide their pay between the demands of their office and family. The pay of a second lieutenant is \$116.67 per month, a sum only sufficient for subsistence and equipment; in fact, it requires prudence and care to do so properly, and particularly is this true of officers of the mounted service, who must provide mounts. A considerable number are required for service in the Philippines, where living is expensive, and the accomplishment of this tour of duty results in actual hardship to officers with families.

#### OFFICERS' DEPOSITS.

The act of May 15, 1872, provides that enlisted men may deposit their savings, in sums not less than \$5, with paymasters, and that on all sums, not less than \$50, so deposited for the period of six months or longer interest shall be paid at the rate of 4 per cent per annum.

As the entire time and abilities of officers of the Army are absorbed in the service of the Government, and it is highly undesirable that they should be permitted to be engaged in or identified with business enterprises of any kind in the localities where they may be serving, it is deemed but simple justice to them that they be given an opportunity, and offered inducements, to save some portion of their salaries, that in case of their death some provision may exist to provide, at least in part, for their families, and in this manner alleviate sore distress, if not entire destitution. It is therefore earnestly recommended that Congress be asked to extend to officers of the Army the provisions of sections 1305 and 1306 of the Revised Statutes, which embody the act cited above.

#### COMMUTATION OF QUARTERS.

The act of June 23, 1879, making appropriations for the Army, provides that the rate of commutation for officers' quarters shall hereafter be \$12 per room per month.

This allowance was fixed nearly a quarter of a century ago, under entirely different conditions from those that prevail to-day (when, in all our large cities, rents have more than doubled), and places the officers assigned to duty therein under peculiar hardships which seriously embarrass them.

To make the allowance for quarters somewhat more adequate to present conditions, it is recommended that in all cases when officers are assigned to duty at places where public quarters can not be furnished them they shall be entitled to one room in addition to the number respectively allotted to them at military posts under paragraph 1110 of the General Regulations.

#### FOREIGN LANGUAGES.

It is important that we have a number of officers with a perfect speaking knowledge of French, German, and Spanish. The question is one that should receive the early consideration of the War College with a view to providing a post-graduate course for a number of officers to perfect themselves in these languages.

business in the localities where he serves, and further than that he is employed by the Government to devote his whole time and abilities to the Government service, and at retirement is provided for the rest of his life; but at the same time he should have an opportunity and inducements to save his money to provide for his family, and such a system of deposits would, I think, obviate many of the cases of destitution in the families of the officers who die in the service."

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Brig. Gen. W. A. Kobbé, commanding the Department of Dakota, reports that—  
Discipline and instruction are good, because, as a rule, officers are capable and painstaking. Generally speaking, the soldier is what his officer makes of him. A gain in efficiency would follow if officers remained single until rank, pay, and allowances enabled them to provide against common exigencies of service.

The battalions, Eighth and Fourteenth Infantry, and the two troops First Cavalry, transferred to other departments, were fitted for any kind of service. This is true also of the Twenty-first Infantry, after recent insular service, and is rapidly becoming true of the recently organized Thirteenth Cavalry under efficient management.

Paragraphs 267, 270, 271, Army Regulations, and 179, Infantry Drill Book, basing discipline and instruction on squads, are very valuable if properly observed. I believe the system might be extended to provide for the training of a permanent squad as scouts in each company and troop, providing thereby a necessary body of expert special troops when the regiment is consolidated in whole or in part for active service.

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Maj. Gen. John R. Brooke, commanding the Department of the East, makes the following remarks and recommendations:

Attention is again invited to the fact that apparently no provisions have been made for the land defense of our most extensive fortifications. This has been emphasized in preparing plans for the coming army and navy maneuvers. As fortifications are made stronger the necessity for consideration of the subject of land defense becomes more pronounced. Where such strong fortifications are erected that the enemy can not hope to force a passage in his ships, his only recourse will be to capture the defenses through land attacks. No forts or earthworks have been constructed to aid in repelling such attacks and, so far as I know, no plans have been made looking to the consideration of this subject in the near future.

Attention is again and finally invited to the urgent need of providing more suitable quarters for officers and barracks for enlisted men at the seacoast posts throughout this department, and especially to the need of quarters and barracks at the various Southern posts suitable to location and climate. All posts should have sufficient accommodations for the troops necessary to form an adequate garrison for them. At this time the present restricted strength of the seacoast artillery does not give at any post one relief at the guns. The reservations should also be made more attractive and the fortifications themselves beautified and improved by the growing of grass upon them. It has been found by actual test that the shifting sands which surround most of the Southern seacoast defenses may be controlled and retained in place by the planting of grass. This method of controlling these sands not only beautifies the post but is very desirable from an economical point of view. As it is now the sand blows into the working parts of the guns and carriages, damaging them and seriously interfering with their easy manipulation, and dri's into the fortification, requiring constant attention and care by the troops, whose time is already occupied by other pressing duties.

The quartermaster dock and forage shed at San Juan, P. R., should be retained and not given over to the island authorities. Should this dock be given up it will become necessary to obtain ground elsewhere for the same purpose for which this is used, and probably at great expense.

The shops, quarters for employees, and the corral at San Juan were hastily and flimsily constructed for the immediate and pressing needs of the troops that first went to Porto Rico. They should now be replaced by others of a permanent and substantial character, either on the site now occupied or preferably on one equally good, but the ownership of which shall be unquestioned.

The exorbitant charge levied by the city of San Juan for water used by the army could be removed by the erection of a distilling plant with sufficient extra power to supply electric current and ice plant, and the introduction of a secondary water system, using salt water, for policing purposes.

The chief paymaster calls attention to the inadequacy of the allowance of commutation of quarters. The present allowance was established many years ago, under entirely different conditions from those that prevail to-day, and rents having more than doubled in all our large cities since it went into effect, officers with a moderate salary serving therein have the greatest possible difficulty in making both ends meet.

The matter of allowance of quarters is also spoken of by the chief paymaster. I concur in his remarks that "a brigadier-general is now allowed five rooms as quarters, or commutation therefor, at \$60 per month." I do not believe that this sum would cover more than one-third the rent he would be forced to pay if stationed in New York City. In this connection I desire to say that the allowance of rooms having been made many years ago is not adequate to the present necessities, for it is seen all about us that the houses occupied by people who were wealthy years ago are now entirely too small and uncomfortable for people who have in these days an income equal to that of the former occupants. An increase of the room allowance is recommended to meet the conditions prevailing throughout the country. Starting with an allowance of two rooms for a second lieutenant, it seems only reasonable that each higher grade should be allowed an additional room over the grade below.

The chief paymaster also makes the following recommendation:

"It has always seemed to me that marksmen and sharpshooters in the infantry and cavalry arms of the service should receive additional pay, say \$1 per month for the former and \$2 for the latter. Certainly a soldier who can hit the object aimed at with his rifle is more valuable to the Government than one who can not. A small increase of pay would, in my judgment, stimulate effort in this direction and do much toward improving the marksmanship of the Army."

There are now in the coast artillery a large number of young officers who have come into the service under the provisions of the act of February 2, 1901. These young officers, while they have had in most cases service in the field or in garrison, have had no experience whatever in the handling of the rapid-fire and large guns with which our present fortifications are armed; nor have they had the necessary technical education that will enable them to take hold of the duties they are now called upon to perform with the grasp of the conditions that exist and aptitude with which to readily fit themselves for onerous duties that are so essential to the modern artilleryman. It is absolutely necessary therefore that these young officers should secure a fundamental training that will enable them to undertake and carry on their new duties understandingly. As long as they are compelled, through the necessities of the case, to perform the various post staff duties they can not have time to devote themselves to technical study. These routine post duties, with which they are almost as unfamiliar as they are with the artillery duties proper, take all the time that they should be asked to devote to hard mental and physical work. It is recommended that several of the well-equipped posts be utilized for the special training of these officers in courses of study similar to those at the Fort Monroe school, as that school is not large enough to accommodate all these officers at once nor to give them the necessary instruction within a reasonable time.

As was the case in 1866, it will be necessary to train the young officers, as well as the young soldiers, in their several duties. This remark applies especially to the artillery, the armament of which has been revolutionized within the last few years, and it will require time to evolve the best methods necessary to make it the success we all hope for.

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Maj. Gen. Arthur MacArthur, commanding the Department of the Lakes, reports: Libraries and reading rooms have been in operation at all the posts, but the supply of books is inadequate. For purposes of instructive reading a supply of military books is needed; for entertaining reading a good supply of works of fiction should be provided. The books now on hand are mainly old novels, which are being read and reread.

#### INSPECTOR-GENERAL'S DEPARTMENT.

The behavior of the troops at each post was reasonably satisfactory. The offenses committed were for the most part of a minor character, and probably had their origin in conditions incident to the return home from foreign service. The inspector [Col. Ernest A. Garlington] reports the discipline not up to a satisfactory standard. He says:

"The troops are now passing through the period following war, always a severe test to discipline, and at this particular time the difficulty is accentuated by the presence with troops of so many young officers of some active service with rank supe-

rior to that now held, but untrained in many of the fundamental principles pertaining to the profession of arms. As a rule they appear to be imbued with the soldierly spirit and a desire to perfect themselves in the details of their chosen profession. Post commanders have the grave responsibility of organizing and conducting schools based upon schemes of instruction that will afford the proper incentive and opportunity to this class of officers."

The troops, largely recruits or men who on account of the necessities of the service have received little preliminary training in the school of the soldier, are reported to show the need of setting up. Instructions have accordingly been given to post commanders to pay especial attention to the preliminary training as set forth in the school of the soldier. It is recommended that facilities in the way of properly equipped gymnasias be provided for the training of the soldiers.

I concur in the following recommendations of Colonel Garlington:

That the campaign hat be made of wool of natural color, thus avoiding the deleterious effects of dye, and rendering it practicable, at least, to issue hats uniform in color.

That the toggle attached to the steel collars of the wheel and swing harness of the light batteries be made longer. There is a perceptible downward pull on the necks of the horses of the wheel and swing teams which not only prevents the proper line of traction but will in service cause many sore necks.

That the issue of gun slings within the United States be discontinued, they being more or less expensive and possessing no value as a means of carrying the rifle in garrison. Hundreds of slings are presented for condemnation which have been worn out by being strapped tight and close to the rifle.

That the spring in the bayonet scabbard be made stronger, the present spring being so weak as to cause the bayonet to fall out in going through thick brush, and that the attachment for fastening the scabbard to the belt be made stronger, as it pulls loose from the scabbard.

The inspector-general reports that he found the guardhouses at all the posts to be overcrowded with general prisoners undergoing sentence and awaiting trial, usually for desertion. This condition is extremely unsatisfactory from every point of view, and indicates the necessity for the existence of a military prison. The remarks of the inspector-general on this subject are worthy of careful attention. He says:

"The presence of a large number of military prisoners partly or wholly in uniform about a garrison, always in evidence, and more or less in contact with young soldiers, is demoralizing to them and an unpleasing picture to residents at the posts and to visiting civilians. It entails large guards and interferes with instruction without any material compensation. The system affords little or no opportunity to reform or reclaim the offender; reduces the punitive feature to a minimum, and reacts deleteriously as exemplary punishment. It is practically impossible under the system to enforce a sentence of hard labor, and the labor performed is unsatisfactory and out of all proportion to the number employed. Many prisoners escape under circumstances suggesting connivance on the part of the sentinels, but not susceptible of proof.

"There is a maudlin sympathy for military offenders, especially deserters, and it will exist as long as human nature remains as it is. The separation of young soldiers from men who have demonstrated their contempt for the obligations imposed upon them by their oaths of enlistment, should be as complete as possible. The relation of the sentinel and prisoner should, of course, present no opportunity for any kind of personal influence by the prisoner upon the sentinel, but we should meet conditions as they really exist. The best solution would seem to be the establishment of a military prison at some central location."

#### SUBSISTENCE DEPARTMENT.

The meal-ticket system has given excellent satisfaction, no complaints having been received from enlisted men on account of insufficiency or quality, or of delay in receiving meals at the proper hour. Neither have any complaints been received from the railroads on account of the misbehavior of enlisted men while traveling. The system of meal tickets is believed to be superior to the method of paying commutation of rations. The meals are served in dining cars or at eating stations, the surroundings are clean, pleasant, and conducive to neatness, and the men furnished tickets leave the city promptly. If furnished with commutation, some of them would be tempted to spend it for liquor, with resulting delay in departure, often terminating in desertion. After spending their money, men have been known in some cases to disgrace their uniform by begging their food from the public, claiming that the Government had not provided the necessary food to subsist them.

## MEDICAL DEPARTMENT.

In the movements of troops every precaution has been taken to prevent the spread of infectious diseases by careful inspection immediately before departure and prompt isolation of cases occurring en route. The success attending such precautionary measures was most marked in the transfer of the Twenty-ninth Infantry from Fort Sheridan to San Francisco. An epidemic of measles delayed this movement for some days, and then each section of the train (four in all) was provided with a tourist sleeper, which was fitted up as a hospital car for the reception of cases occurring en route. The sections followed each other closely, and it was found practicable to devote the hospital car on the rear section to developed cases, while another car afforded space for suspected ones. The results were most satisfactory. This epidemic of measles originated at Columbus Barracks and developed at Fort Sheridan in the person of a man sent to the post. Seventy-nine cases developed at Columbus Barracks, with twelve deaths. Thirty-three cases developed at Fort Sheridan, none of which terminated fatally. The chief surgeon of the department [Lieut. Col. Timothy E. Wilcox] is of the opinion that auto-infection with toxins produced by the disease is less likely to occur while the patients are treated in tents. His opinion is based on experience during the great war and seems to be confirmed by results at Fort Sheridan, where tents were used.

The chief surgeon reports that the dental surgeon has found ample room for the exercise of his vocation and that this addition to the medical resources of the Army is highly appreciated. Separate rooms or buildings should be supplied for the dental surgeon at his permanent post.

Maj. Gen. John C. Bates, commanding the Department of the Missouri, reports:

The military instruction given throughout the Department, while considerable, has not been as thorough and complete as it is intended to make it next year. This is due to the recent return of many of the organizations from hard service in the Tropics with officers and men run down in health, and with many of the former absent for one reason or another, and because other commands have been newly organized and mounted. A tendency has been observed among those returning from foreign service to assume there is no longer the need, formerly acknowledged, of constant instruction to officers and men in all that pertains to our profession, and in some instances there has been lacking that interest in gymnastic exercises so essential to the proper setting up of the men, and to their health and resulting self-reliance and contentment. These conditions improved, however, as the year advanced and as the health and energies of the members of the command became more vigorous in a colder climate. The concentration of the troops in larger bodies also permitted more and varied instruction than was practicable in the small detachments which for a time the necessities of the service abroad demanded, and this increased the interest in the work.

## DISCIPLINE.

The discipline of the command has been good, although there have been more trials by court-martial than should be necessary hereafter under more favorable conditions. Many of these, however, are directly chargeable to the large number of recruits who were required to meet the demands of new organizations and of others which were filled for foreign service. Many desertions are undoubtedly due to homesickness on the part of the recruit and because a considerable number of young men enlist with little knowledge of the life of a soldier, and without mature deliberation. A trial for a few days at a military post is perhaps the best way to determine if an applicant for enlistment will probably make a desirable soldier, and it would also enable the man to decide understandingly if the life will suit him. It is believed to be practicable to apply this test in most instances.

## SUBSISTENCE DEPARTMENT.

The following recommendations contained in the report of the chief commissary are concurred in, viz:

The quality of the articles furnished for issue and sale has, on the whole, been excellent, and the losses occurring by deterioration through climatic influence or accident have been slight, and in most instances the loss has been on potatoes and onions, due mainly to natural causes occurring in transportation and storage at posts, in the vicinity of which none of those vegetables could be procured.

The issuance of meal requests to individual soldiers and detachments, traveling

under orders, has been found to be a great convenience to all concerned, and the results have been far better than under the former system of payment of commutation.

The privilege of purchasing stores and exceptional articles has been liberally used. In this connection it is respectfully suggested that the convenience of purchasers of stores would be enhanced by the addition of the following articles to the list of stores now authorized to be kept on hand for sale to officers and enlisted men:

Razors and shaving soap. We now sell razor strops.

Pens, holders, and points. We now sell ink.

Thread, cotton and linen, white and black; three sizes of each.

Needles, assorted sizes, or, preferably, needle books.

Buttons, trousers.

Envelopes, note.

Paper, note. We now sell letter paper and envelopes only; the smaller sizes would be more convenient.

*Cigars.*—The number of brands to be kept on hand at each post to be increased from two to four, for the reason that desires differ so materially in cigars that two varieties poorly cater to the tastes of the smokers. No wastage or additional expense need be incurred by handling two or more varieties in addition to those now authorized. Toilet soaps could also be increased in the same proportion.

The commissary storehouse at Fort Leavenworth should be considerably enlarged, or a new building for the purpose erected. The great increase in the size of that garrison will make the building now used as a storehouse, sales room, etc., entirely too small.

#### MEDICAL DEPARTMENT.

*Sanitary conditions.*—The water at Fort Leavenworth continues to be the subject of criticism and recommendation by the post surgeon. Several cases of typhoid fever which appeared at that post during the past year were attributed to impure water. Analyses show plainly that the water at Fort Leavenworth is impure; moreover it is very much doubted if the present system will give a sufficient supply for the rapidly increasing garrison. It is thought immediate steps should be taken to establish a new system of waterworks at this post, both as a sanitary measure and as a precaution against fire. A recent chemical examination, in the office of the surgeon-general, of this water revealed the presence of a considerable amount of vegetable matter held in solution, and in this respect the filtered water was as impure as that taken from the taps. The percentage of diarrhea and dysentery patients is greater at this post than at any other in the department.

#### QUARTERMASTER'S DEPARTMENT.

*Posts.*—Building on an extensive scale has been carried on during the year at Fort Leavenworth, and also to a considerable extent at Fort Riley. Both of these posts will continue to serve for an indefinite period as important garrisons, and in addition to housing and permitting of the instruction of a large number of troops there is every reason to believe the Government will be amply rewarded for the money and labor expended upon them by the general information and technical knowledge to be gained by the young officers who will take the course of instruction at the "General Service and Staff College" soon to be established at the former, or at the "School of Application for Cavalry and Field Artillery" at the latter post. I recommend that the liberality which has been shown recently in improving these garrisons be continued, until such conveniences are secured as will permit the schools named to be conducted so as to secure all possible advantages.

In this connection I invite attention to the fact that while a school has been established at Fort Monroe for the special training of artillery officers, and another at Fort Riley for those belonging to the cavalry and field artillery, no similar provision has been made for infantry officers. Indeed, the latter seem to have lost by the newly arranged scheme for instruction, in so much as they formerly had the "Infantry and Cavalry School" at Fort Leavenworth, which apparently is not to be included in the new system of post-graduate instruction. In view of the great importance of the infantry arm, and the urgent need of keeping the officers thereof abreast with modern improvements and ideas, I earnestly recommend that some suitable provision be made for a special school for officers of infantry.

Fort Riley has been selected as a site for yearly autumn maneuvers to be conducted on a scale hitherto unknown in this country. It is admirably adapted to the purpose stated, and surveys have recently been made looking to the proper encampment of about 20,000 men. Because of the size of the reservation and the natural advan-

tages of its terrain for the operations of mounted troops, I am of the opinion and recommend that the cavalry there be increased to two regiments as early as the necessary additional buildings can be erected.

Fort Crook is a handsomely built post. The sanitary conditions are good. It has sufficient barrack capacity to quarter eight small companies and a band, and should be sufficiently enlarged to accommodate a full regiment of infantry. It is proper to state, however, it has not yet been practicable to arrange for target practice at this post with entire safety to the surrounding farmers. It is believed, although not definitely determined, the difficulty can be overcome by building a high embankment immediately in the rear of the "butts," and this plan is now under consideration. If it proves to be impracticable, it will become necessary to buy a proper site for a range. This site should be preferably, but not necessarily, near the post, and it is doubtful if any suitable ground can be had near by at a fair valuation. If located at a distance, practice marches can be combined with target practice, as was done this year when the troops were sent for the latter purpose to the Omaha Indian reservation, 80 miles from the post. It is not thought it will be practicable to hold further target practice on the said reservation, or at least only for a season or two, the land having been allotted in severalty and some of the occupants being disposed to object.

It is recommended only such repairs be made at Fort Niobrara, Nebr., as may be necessary to make the troops stationed there comfortable, and that as early as practicable it be discontinued and its garrison transferred to other stations.

Fort Robinson, including the wood and timber reserve, has a fine reservation of 36 square miles. Our comparatively few large military reservations are becoming very valuable because of the increased size of the Army and the great range of modern firearms, and it would seem to be a wise policy to build in the future so as to utilize the best of these large tracts of land to the greatest advantage. For like reasons Forts Sill and Reno, Okla., are worth continuing; the former has a reservation of 77,920 acres, including the wood reserve. There are, however, about 260 Apache prisoners of war located on it. The reservation at Fort Reno contains 9,493 acres. These two posts also possess the advantage of being located in a mild climate, where troops can be instructed in the open for the greater part of the year. Both need extensive repairs. Reno had better be rebuilt outright, the old buildings being allowed to stand until the new ones, which should be erected on corresponding lines in the rear, are completed.

Fort Logan H. Roots is well built, but small and comparatively unimportant.

Jefferson Barracks, Mo., now garrisoned by eight skeleton troops of cavalry, to be used as instructors for recruits, is not well adapted for mounted troops and should be converted into an infantry garrison.

It is expected work will be pushed vigorously during the ensuing year on the new post to be built near Des Moines, Iowa.

#### APACHE PRISONERS OF WAR.

These Indians were located on the Fort Sill Reservation, Okla., in 1894, and since that date about 28,000 acres of land have been added to the original 23,040 acres comprising the reservation, with a view to the permanent location thereon of the said Indians as well as for military purposes. There is also a wood reserve of 26,880 acres lying about 15 miles from the main reservation, thus making a grand total of 77,920 acres. A bill was introduced, with my approval, in the last session of Congress, recommending that certain grazing lands on the above-stated reservation, including the wood reserve, be rented for grazing purposes for the benefit of these Indians. It did not become a law, and it should, I think, be renewed at the next session, unless it be determined to permanently divide the reservation, so as to assign one part for military purposes, and the other to the Indians. Sufficient land may be assigned the latter from the reservation and the wood reserve combined to give each Indian 160 acres when allotment in severalty becomes desirable, and still leave for military purposes nearly 36,000 acres. It is believed the time has come for some such division. Unless this be done the progress of the Indians will be retarded sooner or later, or military instruction at Fort Sill materially limited. The Indians now have some 3,400 head of cattle, and the herd is materially increasing from year to year, and it is necessary for them to cultivate some of the soil. It will be unfortunate for them if they be allowed to make extensive improvements on ground that may later be permanently assigned to the military.

They are under charge of Capt. Farrand Sayre, Eighth Cavalry, who has displayed great energy, interest and good judgment in the discharge of this unusual duty.

Although the general health of the tribe was much better during the last year than the one preceding, there were 22 deaths and but 12 births. Captain Sayre



assigns the general improvement in health to the fact that the Indians have been prohibited from having dances in cold and inclement weather during the past year. He states the large death rate is due mainly to the fact that a number of infants died of intestinal troubles during the hot weather of last summer.

The progress these Indians are making toward civilization is commendable, and humanity dictates that if they be assigned to a certain part of the reservation, and in consequence thereof have to establish new homes and shops, the Government deal with them with the utmost liberality, in order that they may not be pecuniarily injured by the change or their interest in their work dampened. They are no longer, in any sense, prisoners, and many of them have been born since the original number arrived at Fort Sill.

Col. W. C. Forbush, Twelfth U. S. Cavalry, commanding the Department of Texas, reports:

#### JUDGE-ADVOCATE'S DEPARTMENT.

One of the great difficulties experienced concerning the administration of military justice has been the small capacity of the guardhouses and keeping the different grades of prisoners separate and enforcing prison discipline.

It is believed that the old system of a central military prison (or a number of them) would be better for discipline. At present a deserter is confined at post guardhouse; he gets the same food as the faithful soldier whose duty it is to guard him day and night. The "hard labor" to which he is sentenced generally consists of the easiest and laziest kind of police work during a few hours of the day, while he gets every night in bed. His life is easier than that of the soldier, and the important object of his punishment, viz, to deter others from committing crime, is not realized.

If the present system of confining general prisoners at posts is to be continued a regular prison should be built at some post in the department with a capacity of at least fifty general prisoners.

The increase in the reward paid for the apprehension of deserters makes their capture more certain.

#### SIGNAL OFFICE.

Complete telephone systems have been established at Forts Bliss, Clark, McIntosh, and Sam Houston, and materials are being furnished for the installation of these systems at Forts Brown, Ringgold, and Camp Eagle Pass.

All posts in the department are supplied with proper signal equipments and stores.

#### REMARKS AND RECOMMENDATIONS.

##### PROMOTION OF OFFICERS ON RETIREMENT.

The promotion of colonels on retirement, having forty years' or more service, has been received by the Army with a full sense of appreciation and satisfaction. There was a brief period when the Department hesitated to continue this policy, and in that time several retirements among the colonels took place; and I wish to recommend that Colonel Gilmore, late of the Adjutant-General's Department, and Colonel Williston, late of the artillery, be given the rank of brigadier-general, for they are officers of exceptional ability and merit. Such legislation would be a recognition which their long, efficient, and gallant services demand.

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It is important that we have a number of officers with a perfect speaking knowledge of French, German, and Spanish. The question is one that should receive the early consideration of the War College with a view to providing a post-graduate course for a number of officers to perfect themselves in these languages.

## CAMP SITES.

Under section 35 of the act of Congress approved February 2, 1901, entitled "An act to increase the efficiency of the permanent military establishment of the United States," which section authorized the Secretary of War to cause preliminary examinations and surveys to be made for the purpose of selecting four sites, with a view to the establishment of permanent camp grounds for the instruction of troops of the Regular Army and National Guard, a board of general officers was appointed on November 11, 1901, to report a project for the locations, examination, and surveys of the grounds referred to, of which board the Lieutenant-General Commanding the Army was the president. The board recommended the following locations for these camp sites:

One in the vicinity of Chickamauga Park, Ga.; one at Fort Riley, Kans.; one at Conewago Valley, Pa.; one at Nacimiento Ranch, Cal.

On February 21, 1902, the Chief of Engineers was directed to cause surveys to be made of these four sites and, in addition to them, that a site in the vicinity of Fort Sam Houston, Tex., be surveyed, and on March 1, 1902, he was directed to cause a survey to be made of a tract at Camp Douglas, Juneau County, Wis. This in addition to the five previously mentioned, and preliminary surveys have accordingly been made of these six sites. The acreage of these sites is approximately as follows:

Chickamauga Park .....	16,320
Conewago Valley .....	18,000
Fort Riley .....	21,400
Nacimiento Ranch .....	23,258
Fort Sam Houston .....	25,000
Camp Douglas .....	20,000

Other sites have also been examined, namely: Four in the neighborhood of Louisville and Ashland, Ky., and one in Marin County, Cal., but no surveys have been made of the same.

## RESTORATION OF THE CANTEEN.

The restoration of the exchange as it existed prior to the passage of the act of February 2, 1901, prohibiting the sale of beer, is desired and urged by the great majority of officers and men and by none more than those of pronounced temperance views. Numerous reports confirm the views long held by this office that the old exchange contributed to sobriety, health, and contentment of the men. The increase of desertions and of trials for infractions of discipline is, by those best informed, attributed to the abolition of the former privileges of the exchange.

## VOCAL MUSIC.

The instruction of our men in vocal music would be a step in the direction of contentment and better discipline. Every regiment should have its marching song. Frequent practice in singing, particularly during the long winter evenings, would do much to make our men satisfied to remain in quarters and away from the baleful influence of the barrooms that exist in too great numbers in the vicinity of all our military posts. These barrooms are under the protection of the license and laws of the several States and are beyond the control of the military authority.

## GENERAL STAFF.

The detail-staff system works to the entire satisfaction of the Department. The more a scheme for a general staff is studied the more convinced I become that it offers the best solution of the vexatious friction with which you and your predecessors have had to contend for many years. It is recommended that it again be brought to the attention of Congress and early action urged in the best interests of the service.

Respectfully submitted.

H. C. CORBIN,

*Major-General, Adjutant-General U. S. Army.*

The SECRETARY OF WAR.



DATES BETWEEN JULY 1, 1901, AND JUNE 30, 1902.

ENLISTED MEN.											WOUNDED.	
Died.											Officers.	Enlisted men.
Of wounds.	Disease.	Accident.	Drowned.	Suicide.	Murder or homicide.	Executed.	Retired.	Missing.	Deserted.	Total.		
1	69	4	14	6	2	.....	27	.....	375	1,377	2	7
2	80	7	4	10	1	.....	15	.....	670	1,519	2	19
1	73	7	11	6	1	.....	22	.....	407	1,364	1	37
5	77	6	16	2	2	.....	17	.....	475	1,923	.....	10
.....	73	12	10	3	.....	.....	16	.....	367	3,605	.....	13
3	56	4	11	3	6	.....	26	.....	267	6,167	.....	21
1	60	2	7	.....	1	1	17	.....	316	5,043	2	10
1	58	6	2	3	4	2	13	.....	232	3,507	1	7
.....	72	8	8	2	5	.....	12	.....	289	7,265	.....	5
.....	69	4	5	3	1	1	11	.....	352	5,843	.....	.....
2	75	6	1	3	.....	.....	13	.....	433	4,636	3	43
2	106	3	9	6	7	.....	14	.....	484	5,354	.....	.....
- 18	868	69	98	47	30	5	203	2	4,667	47,603	17	172
.....	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	40	1
18	869	71	99	47	30	5	203	2	4,669	47,643	18	172

in the aggregate.

H. C. CORBIN,  
Adjutant-General, Major-General, U. S. A.

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D.—Deaths in the armies of the United States between July 1, 1901, and June 30, 1902.

Country.	Killed.		Died of wounds.		Disease.		Accident.		Drown- ed.		Suicide.		Murder- or hom- icide.		Executed.		Total.		
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	
<b>REGULARS.</b>																			
United States .....					12	215		33	2	21	2	21		4			16	294	
Cuba .....					1	7				2		1		3			1	13	
Alaska .....						4		1										5	
Porto Rico .....					1	3						1						4	
Hawaiian Islands .....						1						1						2	
Philippine Islands .....	5	92	1	18	8	591	1	35	1	74	1	23		23		5	17	861	
China .....						1												1	
At sea .....						46				1								47	
Total .....	5	92	1	18	22	868	1	69	3	98	3	47		30		5	35	1,227	
<b>VOLUNTEERS.</b>																			
Porto Rico .....					2	1		2		1								2	4
Philippine Islands .....	2				3							2						7	
Total .....	2				5	1		2		1	2							9	4
Grand total .....	7	92	1	18	26	869	1	71	3	99	5	47		30		5	43	1,231	

α One officer of the Regular Army also held a commission in the volunteers, and to avoid counting twice, is deducted from the aggregate.

H. C. CORBIN,  
Adjutant-General, Major-General, U. S. Army.

ADJUTANT-GENERAL'S OFFICE.  
Washington, D. C., October 1, 1902.



## REPORT OF THE ADJUTANT-GENERAL.

## E.—Dates of sailing and troops sent to Philippine Islands.

[Maj. Gen. George W. Davis relieved General Chaffee in command of the Division of the Philippines September 30, 1902. At the date of last report there had been forwarded to the Philippines 3,685 officers and 109,662 enlisted men. Since that time transports carrying troops have left here as indicated.]

Date of sailing.	Transport.	Commanding officer.	Command.	Strength.		Date of arrival in Manila.
				Officers.	Enlisted men.	
1901.						
Oct. 1	Hancock.....	Maj. R. H. R. Loughborough, 6 Inf.....	Det. officers, recruits, and casuals.....	18	142	Oct. 26
Oct. 16	Thomas.....	Capt. W. M. Coulling, Q. M., U. S. A.....	Det. officers, Signal Corps, and casuals.....	17	189	Nov. 12
Nov. 1	Kilpatrick.....	First Lieut. M. R. Hilgard, 16 Inf.....	Det. officers, recruits, and casuals.....	15	189	Dec. 2
Nov. 15	Grant.....	Col. Mott Hooton, 28 Inf.....	Hdqrs., A, B, C, D, I, K, L, M, 28 Inf., recruits, and casuals.....	25	946	Dec. 12
Nov. 16	Rosecrans (from Portland, Oreg.).....	Capt. F. E. Bamford, 28 Inf.....	E, F, G, H, 28 Inf., and casuals.....	10	460	Dec. 22
Nov. 16	Meade.....	Capt. R. McA. Schofield, Q. M., U. S. A.....	Det. officers, Hosp. Corps, Signal Corps, and casuals.....	8	21	Dec. 19
Dec. 5	Crook (from New York City).....	Lieut. Col. A. G. Hennisee, 11 Cav.....	E, F, G, H, 11 Cav., I, K, L, M, 27 Inf., and casuals.....	29	784	Feb. 3
Dec. 16	Hancock.....	Col. W. M. Wallace, 15 Cav.....	Hdqrs., E, F, H, I, K, L, M, 15 Cav., and recruits, etc.....	31	982	Jan. 11
Jan. 1	Sheridan.....	Col. F. D. Baldwin, 27 Inf.....	A, B, C, D, 11 Cav.; Hdqrs., A, B, C, D, 27 Inf., recruits and casuals.....	45	1,502	Jan. 26
Jan. 16	Kilpatrick.....	Capt. J. A. Penn, 7 Inf.....	Det. officers, recruits, and casuals.....	18	708	Feb. 17
Jan. 21	Bulford (from New York City).....	Col. F. Moore, 11 Cav.....	Hdqrs., I, K, L, M, 11 Cav.; E, F, G, H, 27 Inf., det. Hosp. Corps, and casuals.....	44	798	Mar. 21
Feb. 1	Thomas.....	Maj. W. Paulding, 3 Inf.....	Det. officers, Hosp. Corps, recruits, and casuals.....	23	513	Mar. 8
Feb. 18	Grant.....	Lieut. Col. C. H. Stobbs, 16 Inf.....	Det. officers, recruits, and casuals.....	19	329	Mar. 10
Feb. 19	Warren.....	Capt. S. W. Dunsmuir, 16 Inf.....	E, F, G, H, 16 Inf., recruits, and casuals.....	19	783	Apr. 2
Mar. 13	Hancock.....	Capt. S. H. Lincoln, 10 Inf.....	E, F, G, H, 10 Inf., recruits, and casuals.....	23	832	Apr. 13
Mar. 15	Yeadon.....	Lieut. Col. F. H. Kay, 7 Inf.....	Det. officers, Signal Corps, recruits, and casuals.....	15	752	Apr. 21
Apr. 1	Sheridan.....	Lieut. Col. T. F. Forbes, 29 Inf.....	29 Inf., det. officers, recruits, and casuals.....	48	1,652	May 1
Apr. 12	Kilpatrick.....	Maj. Z. W. Torrey, 24 Inf.....	Det. officers, recruits, and casuals.....	15	127	May 11
Apr. 16	Sherman.....	Capt. T. H. Wilson, 11 Inf.....	A, B, C, D, 2 Inf., recruits, etc.....	51	514	May 12
Apr. 21	Crook.....	Maj. J. B. Jackson, 11 Inf.....	E, F, G, H, 11 Inf., det. officers and casuals.....	22	454	May 20
May 16	Thomas.....	First Lieut. H. Olin, 30 Inf.....	Det. officers, recruits, and casuals.....	41	83	May 26
May 16	Meade.....	Capt. J. Howard, 30 Inf.....	Det. officers, Signal Corps, recruits, and casuals.....	13	92	June 9
June 2	Bulford.....	Capt. E. C. Carey, 30 Inf.....	Det. officers, recruits, and casuals.....	13	70	July 4
June 16	Kilpatrick.....	Second Lieut. W. J. O'Loughlin, 2 Inf.....	Det. officers, Hospital Corps, recruits, and casuals.....	5	84	July 16
July 1	Sherman.....	Col. C. G. Penney, 29 Inf.....	E, F, G, H, 5 Cav., and Hospital Corps.....	17	350	July 29
July 16	Logan.....	Lieut. Col. S. R. Whittall, 27 Inf.....	Det. officers, recruits, and casuals.....	16	84	Aug. 13
Aug. 1	Sheridan.....	First Lieut. W. O. Reed, 6 Cav.....	Det. officers, recruits, and casuals.....	7	41	Aug. 28
Aug. 16	Sumner.....	Maj. S. L. Woodward, 1 Cav.....	E, F, G, H, 1 Cav., recruits, and casuals.....	16	384	Sept. 16
Sept. 1	Sheridan.....	First Lieut. Lewis Foerster, 5 Cav.....	Det. officers, recruits, and casuals.....	18	61	Sept. 26
Sept. 16	Crook.....	Capt. J. de L. Lafitte, Q. M., U. S. A.....	Det. Hospital and Signal Corps.....	15	20	Oct. 19
				647	14,695	

Transports sailed from San Francisco, Cal., unless otherwise indicated.

F.—Retirements, resignations, deaths, etc., among officers between October 1, 1901, and October 1, 1902.

Name and rank.	Date.	Length of service.		
		Yrs.	m.	d.
<b>RETIRED.</b>				
Andrus, E. Van Arsdale, colonel, Artillery Corps.	Apr. 1, 1902.....	41	9	0
Anglum, Daniel F., captain, Twelfth Infantry....	Nov. 4, 1901.....	27	4	23
Auman, William, brigadier-general.....	May 10, 1902.....	39	6	7
Bache, Dallas, colonel, assistant surgeon-general.	Jan. 1, 1902.....	40	7	1
Baker, John P., major, paymaster.....	July 24, 1902.....	26	9	22
Batchelor, Joseph B., jr., captain, Twenty-fourth Infantry.	Jan. 11, 1902.....	25	1	8
Batson, Matthew A., captain, Fifteenth Cavalry..	Feb. 6, 1902.....	13	9	27
Bird, Charles, brigadier-general.....	June 17, 1902.....	39	7	27
Bisbee, William H., brigadier-general.....	Oct. 1, 1902.....	41	0	29
Blunt, J. Y. Mason, captain, Fifteenth Cavalry...	June 20, 1902.....	17	3	14
Brooke, John R., major-general.....	July 21, 1902.....	40	4	6
Buffington, Adelbert R., brigadier-general, Chief of Ordnance.	Nov. 22, 1901.....	45	4	21
Burbank, James B., colonel, Artillery Corps.....	Sept. 11, 1902.....	39	4	25
Burt, Andrew S., brigadier-general.....	Apr. 15, 1902.....	40	11	25
Byroade, George L., first lieutenant, First Infantry.	Nov. 11, 1901.....	7	9	18
Clay, Charles D., captain, Seventeenth Infantry...	Mar. 8, 1902.....	18	4	27
Cloud, Marshall M., first lieutenant, assistant surgeon.	Mar. 25, 1902.....	5	4	11
Conrad, William D., captain, Fifteenth Infantry...	June 13, 1902.....	8	9	27
Day, Selden A., lieutenant-colonel, Artillery Corps.	July 22, 1902.....	41	1	2
De Russy, Isaac D., brigadier-general.....	Apr. 15, 1902.....	40	11	19
Dove, Wilbur E., captain, Twelfth Infantry.....	Dec. 17, 1901.....	12	10	19
Forwood, William H., brigadier-general, Surgeon-General.	Sept. 7, 1902.....	41	0	14
Greenleaf, Charles R., colonel, assistant surgeon-general.	Jan. 1, 1902.....	40	7	3
Guenther, Francis L., brigadier-general.....	Feb. 22, 1902.....	47	7	21
Hall, Robert H., brigadier-general.....	Nov. 15, 1901.....	46	4	14
Hannay, John W., lieutenant-colonel, Thirtieth Infantry.	Oct. 15, 1901.....	35	10	16
Harbach, Abram A., brigadier-general.....	May 28, 1902.....	40	9	4
Hooton, Mott, brigadier-general.....	Apr. 16, 1902.....	39	0	2
Horne, William J. D., captain, Ninth Cavalry.....	Mar. 31, 1902.....	18	9	0
Hughes, William N., captain, Thirteenth Infantry.	Oct. 15, 1901.....	21	11	4
Humphrey, Harry D., captain, Ninth Cavalry.....	Jan. 17, 1902.....	15	10	5
Jackson, John, second lieutenant, Twenty-fifth Infantry.	Mar. 31, 1902.....	8	4	18
Jones, Francis B., major, Quartermaster's Department.	Oct. 26, 1901.....	38	0	19
Kimball, James P., colonel, assistant surgeon-general.	Apr. 7, 1902.....	35	4	14
Leavell, Benjamin W., captain, Twenty-sixth Infantry.	Mar. 12, 1902.....	26	8	11
Lincoln, Sumner H., brigadier-general.....	June 9, 1902.....	40	0	28
Long, James W., captain, United States Infantry.	June 30, 1902.....	9	4	12
Marye, William A., colonel, Ordnance Department.	June 14, 1902.....	43	11	13
Merriam, Henry C., brigadier-general.....	Nov. 13, 1901.....	38	1	20
Moale, Edward, colonel, Fifteenth Infantry.....	Jan. 30, 1902.....	40	7	3
Moore, James M., colonel, Quartermaster's Department.	Oct. 26, 1901.....	39	11	25
McCammon, William W., major, Sixth Infantry..	May 28, 1902.....	39	1	8
McCleery, John B., chaplain, Seventh Infantry...	July 13, 1902.....	21	1	13
McClure, Charles, lieutenant-colonel, Pay Department.	Feb. 20, 1902.....	39	9	17
Noyes, Henry E., colonel, Second Cavalry.....	Nov. 16, 1901.....	44	4	15
Otis, Elwell S., major-general.....	Mar. 25, 1902.....	37	5	29
Patton, Jonathan N., captain, quartermaster.....	Feb. 13, 1902.....	6	10	10
Powell, Phillip P., captain, Ninth Cavalry.....	Nov. 12, 1901.....	26	0	15
Reeves, Ira L., first lieutenant, Sixteenth Infantry.	Nov. 11, 1901.....	7	11	0
Sheridan, Michael V., brigadier-general.....	Apr. 16, 1902.....	38	10	28
Smith, Jacob H., brigadier-general.....	July 16, 1902.....	39	7	2
Snyder, Simon, brigadier-general.....	May 10, 1902.....	41	0	14
Spurgin, William F., brigadier-general.....	May 29, 1902.....	40	3	23
Stephens, John F., captain, Tenth Infantry.....	July 17, 1902.....	15	5	16
Sternberg, George M., brigadier-general, Surgeon-General.	June 8, 1902.....	41	0	8
Stretch, John F., colonel, Twenty-seventh Infantry.	July 14, 1902.....	40	0	13
Strong, Richard P., lieutenant-colonel, Artillery Corps.	June 18, 1902.....	39	11	12
Swift, Eugene L., major, surgeon.....	Dec. 9, 1901.....	14	3	23
Todd, Charles C., first lieutenant, Twentieth Infantry.	Dec. 4, 1901.....	3	4	0
Van Horne, William M., colonel, Twenty-ninth Infantry.	Oct. 16, 1901.....	39	7	0
Ward, Thomas, brigadier-general.....	July 22, 1902.....	43	0	21
Webster, Edmund K., major, Twenty-seventh Infantry.	July 10, 1902.....	31	10	9

## F.—Retirements, resignations, deaths, etc., among officers between October 1, 1901, and October 1, 1902—Continued.

Name and rank.	Date.	Length of service.
RETIRED—continued.		
Wheaton, Loyd, major-general.....	July 15, 1902.....	Yrs. m. d. 40 9 9
Wheelan, James N., colonel Twelfth Cavalry.....	Dec. 6, 1901.....	40 0 8
Whitside, Samuel M., brigadier-general.....	June 9, 1902.....	43 6 29
Wilson, David B., lieutenant-colonel Twenty-fifth Infantry.	Mar. 12, 1902.....	36 11 7
Wilson, James L., captain, Artillery Corps.....	Nov. 4, 1901.....	34 4 6
Winne, Charles K., lieutenant-colonel, Medical Department.	June 30, 1902.....	39 8 26
Wood, Marshall W., major, surgeon.....	Aug. 12, 1902.....	32 5 17
Woodruff, Ezra, lieutenant-colonel, deputy surgeon-general.	Oct. 24, 1901.....	34 10 14
WHOLLY RETIRED.		
Wetherill, Henry E., first lieutenant, assistant surgeon.	Oct. 16, 1901.....	.....
RESIGNED.		
Abbott, John W. C., second lieutenant, Artillery Corps.	May 31, 1902.....	.....
Admiral, Eli Lewis, first lieutenant, Twenty-second Infantry.	Sept. 18, 1902.....	.....
Baines, Thomas M., jr., second lieutenant, Ninth Infantry.	Apr. 30, 1902.....	.....
Batchelder, Nathan P., captain, quartermaster.....	Jan. 31, 1902.....	.....
Bradford, William S., first lieutenant, Seventeenth Infantry.	Dec. 4, 1901.....	.....
Calvert, William J., first lieutenant, assistant surgeon.	Aug. 9, 1902.....	.....
Detchemendy, George A., captain, Twenty-second Infantry.	Mar. 10, 1902.....	.....
Gaines, Noel, first lieutenant, Artillery Corps.....	Sept. 10, 1902.....	.....
Longley, Francis F., second lieutenant, Corps of Engineers.	Sept. 2, 1902.....	.....
Lyon, Dupont B., first lieutenant, Sixteenth Infantry.	Jan. 22, 1902.....	.....
Millhoff, Clarence B., first lieutenant, assistant surgeon.	Nov. 5, 1901.....	.....
Mitchell, John B., first lieutenant, Twelfth Infantry.	Nov. 29, 1901.....	.....
McGill, William R., second lieutenant, Artillery Corps.	May 22, 1902.....	.....
McNulta, Donald, first lieutenant, Twenty-third Infantry.	Dec. 17, 1901.....	.....
Nichols, Rowland S., chaplain, Fifth Cavalry.....	Mar. 31, 1902.....	.....
Patterson, C. Stuart, jr., first lieutenant, Artillery Corps.	Sept. 17, 1902.....	.....
Pinkham, Edward W., first lieutenant, assistant surgeon.	June 10, 1902.....	.....
Shuman, John B., second lieutenant, Twenty-eighth Infantry.	Dec. 18, 1901.....	.....
Smith, Harry E., captain, Artillery Corps.....	June 3, 1902.....	.....
Spiller, Robert K., second lieutenant, Twenty-sixth Infantry.	Oct. 29, 1901.....	.....
Stout, Harry H., first lieutenant, Ordnance Department.	Dec. 27, 1901.....	.....
Trent, Grant T., first lieutenant, Eighth Infantry..	Sept. 5, 1902.....	.....
Watterson, Henry, jr., first lieutenant, Twenty-ninth Infantry.	Sept. 2, 1902.....	.....
DEATHS—OFFICERS ON THE ACTIVE LIST.		
Allen, Ernest E., first lieutenant, Artillery Corps...	Mar. 4, 1902, Vancouver Barracks, Wash.	.....
Anderson, Robert H., captain, Ninth Infantry.....	Nov. 7, 1901, Manila, P. I.....	.....
Arnold, Isaac, jr., lieutenant-colonel, Ordnance Department.	Oct. 15, 1901, Pittsburg, Pa.....	.....
Ashbridge, William, second lieutenant, Fourteenth Infantry.	Apr. 3, 1902, Fort Wayne, Mich.....	.....
Avery, Howard S., first lieutenant, Fourteenth Infantry.	.....do.....	.....
Barnett, Charles R., lieutenant-colonel, Quartermaster's Department.	July 5, 1902, Battlecreek, Mich.....	.....
Belknap, Hugh R., major, paymaster.....	Nov. 12, 1901, Calamba, P. I.....	.....
Bevan, James M., second lieutenant, Artillery Corps	Jan. 1, 1902, Fort Canby, Wash.....	.....
Bonesteel, Charles H., major, Twenty-third Infantry.	Sept. 24, 1902, at sea.....	.....
Brower, Ralph P., first lieutenant, Artillery Corps.	Aug. 7, 1902, Fallac, Cal.....	.....
Carpenter, Charles E., second lieutenant, Eighth Infantry.	Feb. 9, 1902, Bay Laguna, P. I.....	.....

F.—Retirements, resignations, deaths, etc., among officers between October 1, 1901, and October 1, 1902—Continued.

Name and rank.	Date.	Length of service.
<b>DEATHS—OFFICERS ON THE ACTIVE LIST—cont'd.</b>		
Chase, Constantine, lieutenant-colonel, Artillery Corps.	Sept. 20, 1902, Fort Trumbull, Conn.	<i>Yrs. m. d.</i>
Clagett, J. Rozier, major, Second Infantry	Mar. 28, 1902, New Orleans, La.	
Crawford, Robert T., first lieutenant, First Infantry	Oct. 30, 1901, drowned in Bobon River, Samar, P. I.	
Curtis, Edwin S., major, Artillery Corps.	Nov. 4, 1901, Brooklyn, N. Y.	
Danes, Henry C., major, Artillery Corps.	Nov. 4, 1901, Presidio, San Francisco, Cal.	
Ellis, Eugene A., major, Thirteenth Cavalry	Feb. 22, 1902, Hot Springs, Ark.	
Fiscus, William W., jr., first lieutenant, Nineteenth Infantry	Jan. 12, 1902, Tagbilaran, Bohol, P. I.	
French, John W., colonel Twenty-second Infantry	Nov. 11, 1901, Fort McPherson, Ga.	
Furay, Clarence M., second lieutenant, Second Infantry	Feb. 17, 1902, Columbus, Ohio	
Gurovits, Odon, captain, Eleventh Infantry	Jan. 14, 1902, Barbay, Leyte, P. I.	
Hartshorne, Benjamin M., jr., captain, Seventh Infantry	Jan. 2, 1902, killed in action near Lanang, Samar P. I.	
Josman, Albert L., second lieutenant, Twenty-seventh Infantry	July 28, 1902, Manila, P. I., from wounds received in action.	
Merchant, Bert H., captain, Fifteenth Infantry	April 2, 1902, Manila, P. I.	
Meyler, James J., captain, Corps of Engineers	Dec. 12, 1901, Newark, N. J.	
McDowell, Ralph E., second lieutenant, Twelfth Cavalry	Aug. 16, 1902, drowned in Pinto River, Fort Clark, Tex.	
McKinnon, William D., chaplain	Sept. 25, 1902, Manila, P. I.	
Paul, Charles R., colonel Thirtieth Infantry	Nov. 8, 1901, Philadelphia, Pa.	
Pope, Benjamin F., colonel, assistant surgeon-general.	Feb. 14, 1902, Manila, P. I.	
Rafferty, William A., colonel Fifth Cavalry	Sept. 13, 1902, Manila, P. I.	
Richards, William V., lieutenant-colonel Seventh Infantry	Dec. 8, 1901, Vancouver Barracks, Wash.	
Russell, Charles E., captain, Eighth Infantry	May 26, 1902, Santa Cruz, P. I.	
Shollenberger, John H., captain, Tenth Infantry	July 4, 1902, Manila, P. I.	
Vicars, Thomas A., first lieutenant, Twenty-seventh Infantry	May 2, 1902, killed in action at Bayan, Mindanao, P. I.	
Williams, James C., second lieutenant, Twelfth Infantry	Oct. 13, 1901, near Tarlac, P. I.	
Wooten, Bradley J., second lieutenant, Seventh Cavalry.	Dec. 15, 1901, Columbia Barracks, Cuba.	
DROPPED.		
Stockly, Paul D., second lieutenant, Twenty-first Infantry	Apr. 4, 1902, dropped as missing	
Wiggins, Robert H., second lieutenant, Fourth Cavalry.	Sept. 8, 1902, dropped for desertion.	
DISMISSED.		
Hagedorn, Ernst, first lieutenant, Twenty-eighth Infantry.	June 15, 1902.	
COMMISSION EXPIRED BY CONSTITUTIONAL LIMITATION.		
Coe, Frederick E., second lieutenant, Twenty-first Infantry.	July 1, 1902.	
<b>DEATHS—OFFICERS ON THE RETIRED LIST.</b>		
Adams, Moses N., chaplain	July 23, 1902, Buffalo, N. Y.	
Arnold, Abraham K., colonel	Nov. 23, 1901, Cold Spring on Hudson, N. Y.	
Bache, Dallas, colonel	June 2, 1902, San Diego, Cal.	
Batchelor, Joseph B., jr., captain	Aug. 7, 1902, Natividad, P. I.	
Bates, Robert F., major	June 12, 1902, Washington, D. C.	
Benham, Robert B., captain	Aug. 31, 1902, Arlington, Oreg.	
Brooke, John, major	May 12, 1902, Radnor, Pa.	
Brown, Hugh G., major	Nov. 30, 1901, Keosauqua, Iowa	
Catlin, Lynde, captain	Oct. 8, 1901, Saranac Lake, N. Y.	
Cole, George W., captain	Sept. 26, 1902, Tucson, Ariz.	
Cushing, Harry C., major	July 2, 1902, New Rochelle, N. Y.	
Dinwiddie, William A., first lieutenant	Nov. 4, 1901, Palmyra, Wis.	
Dunton, Warren R., first lieutenant	Apr. 28, 1902, Boonville, Mo.	
Floyd-Jones, De Lancy, colonel	Jan. 19, 1902, New York, N. Y.	
Forsyth, Lewis C., lieutenant-colonel	Sept. 25, 1902, Sweet Chalybeate Springs, Va.	
Getty, George W., colonel	Oct. 1, 1901, Forest Glen, Md.	
Gibson, Edwin O., captain	June 5, 1902, Norwich Depot, N. Y.	
Greene, Charles H., captain	Jan. 8, 1902, Baltimore, Md.	
Jackson, John W., chaplain	Aug. 8, 1902, Washington, D. C.	
Kimball, James P., colonel	Apr. 19, 1902, Tannersville, N. Y.	
Kramer, Adam, major	Nov. 10, 1901, Iowa City, Iowa	

## F.—Retirements, resignations, deaths, etc., among officers between October 1, 1901, and October 1, 1902—Continued.

Name and rank.	Date.	Length of service.
DEATHS—OFFICERS ON THE RETIRED LIST—cont'd.		
Kuhn, Henry H., first lieutenant	Nov. 1, 1901, Johnstown, Pa	
Leonard, John, first lieutenant	Feb. 26, 1902, Newark, N. J.	
Litchfield, Henry G., major	Jan. 26, 1902, New York, N. Y.	
Lloyd, Thomas J., major	Dec. 17, 1901, Suffern, N. Y.	
Munn, Curtis E., major	June 7, 1902, Topeka, Kans.	
McArthur, Joseph H., major	Jan. 23, 1902, Chicago, Ill.	
McGilvray, John, captain	Jan. 23, 1902, Denver, Colo.	
McKeever, Samuel, captain	May 15, 1902, Somerville, Mass.	
Piper, Alexander, colonel	Feb. 22, 1902, New York, N. Y.	
Potter, Carroll H., lieutenant-colonel	Dec. 9, 1901, Philadelphia, Pa.	
Powell, William H., colonel	Nov. 16, 1901, Sacketts Harbor, N. Y.	
Robinson, Thomas B., captain	Dec. 6, 1901, Fort Morgan, Col.	
Sharp, Alexander, major	Nov. 2, 1901, San Francisco, Cal.	
Smith, Charles H., colonel	July 17, 1902, Washington, D. C.	
Stafford, Stephen R., major	May 31, 1902, Brockport, N. Y.	
Stanley, David S., brigadier-general	Mar. 13, 1902, Washington, D. C.	
Townsend, Thomas, G., captain	May 13, 1902, Washington, D. C.	
Vance, Richard, captain	Feb. 17, 1902, New Orleans, La.	
Vinal, William H., captain	Oct. 16, 1901, Culpeper, Va.	
Vollum, Edward P., colonel	May 31, 1902, Munich, Germany.	
Warren, Charles H., captain	Jan. 28, 1902, Berkeley, Cal.	
Webber, Edwin H., first lieutenant	Jan. 30, 1902, Philadelphia, Pa.	
Wedemeyer, William G., major	Feb. 1, 1902, Los Angeles, Cal.	
Whipple, William D., colonel	Apr. 1, 1902, New York, N. Y.	
White, David, chaplain	Oct. 25, 1901, Lawrence, Kans.	
Wilson, James L., major	Apr. 13, 1902, Aiken, S. C.	

ADJUTANT-GENERAL'S OFFICE,  
Washington, D. C., October 17, 1902.

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**REPORT OF THE INSPECTOR-GENERAL.**

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## SUMMARY OF RECOMMENDATIONS AND COMMENDATIONS IN THIS REPORT.

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### RECOMMENDATIONS.

Page 385. To fill a dozen vacancies in the Army each year by competitive examinations of graduates of colleges having army officers detailed as military professors.

Page 386. To authorize by law 100 officers for service as military professors in colleges, additional to the officers now authorized for regimental service, and thus relieve the evil of absenteeism.

Page 386. To establish for military colleges the same methods of property accountability as are adopted at West Point and in the Army.

Page 387. To establish some intercollegiate military contest, to be held annually at some convenient time and place during the college year—preferably target shooting, or the assembling of a representative organization from some of the colleges for competitive drill or maneuvers—in order to stimulate the interest of the students of the military colleges.

Page 392. Authorize a more nearly adequate number of officers in order to avoid the injuries of absenteeism.

Pages 393–394. Increase the pay of noncommissioned officers of the line, and allow travel pay to soldiers discharged in the Philippines who reenlist.

Page 398. Where proper facilities for target practice can not be had at the post, troops should be moved, during the season, to posts having good ranges, or be sent to some place to camp where a range can be constructed.

Page 398. The problem of finding suitable ranges for light artillery practice should be solved.

Page 399. A properly equipped gymnasium should be supplied at every permanent military post.

Page 399. N. C. O. schools should be raised to a higher plane by progressive courses, to be prescribed by the War Department and conducted by battalion or post methods and supervision.

Page 400. General mess to be limited to recruit rendezvous for recruits only.

Page 400. Suitable company kitchens should be provided where needed, and general mess halls converted into well-equipped gymnasiums, or used for other necessary purposes.

Page 401. That the post bakery be utilized as a school of instruction for bakers by the detail of one man from each organization for a four months' tour of duty in the bake shop for purposes of instruction—this to be additional to the regular force of bakers.



Page 402. To establish reading rooms at every permanent station in the Philippines, the need of post libraries being very greatly felt there.

Page 408. The erection of good wharves and landing places at the Philippine ports.

Page 408. The shipment of stores on commercial boats might, in some instances, prove advantageous to the Government.

Page 409. Suggests the establishment of a system that will insure the prompt payment of indebtedness to all civilians, especially for services in the Philippines.

Page 414. Suggests the immediate construction of permanent and creditable posts in the Philippines at such points as may be chosen as the most permanent strategical centers, etc. (See p. 479.)

Page 415. Suggests the use of strong, commodious public buildings on the water front in Manila, say at both sides of the mouth of the Pasig River, and tunnel the river.

Page 416. Recommends a lighter blanket for troops serving in the Philippines than the one now in use.

Page 417. Recommends use of shirt and better ventilated hat for soldiers roughing it in the Philippines.

Page 417. To induce line officers to report on the Munson tent.

Page 417. To adopt certain cooking utensils (like boilers, etc.) of slightly conical shape, which will more readily nest for convenience in transportation and storage.

Page 419. To suitably mark the spot where General Lawton fell.

Page 419. To establish a national cemetery in the Philippines should the removal of the dead to America be discontinued even partially; also the establishment of a national cemetery in every department.

Page 422. To have officers and soldiers on farthest duty live at least without additional expense over those in Washington, etc.

Page 423. Suggests the practicability of discontinuing transport quartermasters and commissaries and substituting pursers or quartermaster's agents; also the proper amount to be charged for subsistence to saloon passengers; also, the better status and discipline of transport crews and stewards, etc.

Page 424. The introduction of "general service" men into the transport service, as at West Point.

Page 424. As to transports—more attention to assured seaworthiness of the largest possible equipment of life-saving appliances and exercises of the crew at emergency stations at irregular periods.

Page 424. Canvas swimming tanks (like those on English lines) for use on transports on long voyages.

Page 429. To have all flour and bacon for use in the Philippines put up in tin cans. If well tinned and boxed, the loss on flour and bacon would be largely reduced.

Page 430. The purchase of no other chewing tobacco than the soldiers' favorite, as the use of other tobaccos seems not desired by the men and causes discomfort and annoyance to them and waste to the Government, both in transportation and condemnation.

Page 432. The construction of tunnels under the Pasig River at Manila (like in Chicago) to improve rapid transit.

Page 433. All officers and men ordered to the Philippines to have their teeth examined before leaving the States, as decay of teeth is said to be greatly accelerated in the islands.

Page 435. The necessity of sterilizing water before drinking it.

Page 439. That the present general hospital in Washington, D. C., be turned over exclusively for the use of the command at Washington Barracks, and that a site be secured elsewhere for the erection of a general hospital, hospital corps barracks, and other necessary buildings.

Page 441. To secure a permanent location for a military hospital at Honolulu, H. I.

Page 444. Recommends legislation enabling active officers to deposit their savings with a paymaster in sums not less than \$25, or in any one year not exceeding their pay for that year.

Page 449. To double the present electrical plant and cable lines in the Philippines in every interest, even that of military success and the saving of soldiers' lives.

Page 449. Suggests that something should be promptly done to preserve in the Philippines the most effectual organization of the Signal Corps, under the great difficulty there in procuring telegraph operators for that service, and the special importance of the service.

Page 450. Wireless telegraphy should receive due consideration. Is it not time that a system whose wires can not be cut should be introduced and familiarized in such war and transportation as the Philippines introduce to us?

Page 451. To introduce a limited electrical course at the Western as well as the Eastern schools.

Page 474. To dispense with books and so much long handwriting in army records and use modern methods of manifolding would save time and money.

Page 474. The book-record system might well receive the attention of the board on diminishing paper work.

Page 474. Suggests that a form of cashbook be adopted by the Ordnance Department, as in the Quartermaster and Pay Departments, and its disbursing officers supplied with them.

Page 474. To have all other property papers like ordnance returns of officers on duty in the Philippines undergo a preliminary examination before being forwarded to Washington, so any irregularities or informalities may be corrected at once. It has proved a great convenience.

Page 475. More attention should be given by invoicing officers to completing the description of public animals. No irregularities should be possible.

Page 476. Suggests that a small, silent war dog, such as the English lurcher, or the white Spanish terrier, might be particularly useful in jungle warfare, both to reveal the concealed enemy and to increase security.

Page 477. Recommends more clerks, and better pay for clerks, in the Inspector-General's Department.

Page 477. Recommends retirement of clerks with retired pay.

Page 478. Recommends a Congressional appropriation for the clerical assistance now so urgently needed by outside inspectors-general, the clerks to be provided along the same lines by which the Pay Department at large is supplied with clerks.

Page 480. Urges the prompt construction in the Philippines of commodious quarters and barracks for our troops. If at any time in the future they should not be needed for troops they could easily be converted into public civil buildings. (See page 414.)

Page 481. Recommends the devising of some system that will equalize tropical service.

Page 485 *et seq.* Necessity of inspection and of an inspection corps.

#### COMMENDATIONS.

Page 401. The ovens won universal praise.

Page 401. That generally every effort was enthusiastically made by the subsistence department to have the troops well provided everywhere during the year is heartily recognized by all.

Page 404. The Engineers as the *corps de élite* also commended on transport.

Page 407. As to the supply departments: The purchases have been, if anything, overabundant, and generally the troops have been well supplied, and the exceptional good health of the men, especially those engaged in the most arduous duties in the Philippines, seems in a great measure due to this, as well as to the careful attention that has been given to sanitation.

Page 408. Every bureau is doing its best to promote economy and efficiency, and every locality seems working fairly in the same spirit, etc.

Page 409. It is clearly evident that the heft of the hardest work of the year has fallen on the Quartermaster's Department, and it is equally evident how excellently it has done its work and how generous and painstaking and successful in all its supplies, especially under the novel circumstances attending foreign service, etc.

Page 424. Owned transports commended as more efficient and amenable to military contingencies and having a finer *esprit du corps* than can be expected of any heterogeneous or hired vessels. Their work proves the officers in charge of this transport duty are able and earnest and successful.

Page 426. Subsistence stores. The extremely limited and few complaints in a business so widespread and so sensitive is practically a vote of confidence in our admirable Subsistence Department by an overwhelming majority.

Page 431. The revolution in the management of the subsistence depot at Manila, and the remarkable improvement effected in the spirit and methods of its business under Maj. B. K. West, necessarily attracted attention, but not more than it deserved.

Page 433. Dental surgeons have rendered valuable service in the Philippines, and the establishment of this branch of the Medical Department has proven a great boon to the army there.

Page 438. The medical supply depots were in excellent condition.

Page 439. The general hospitals were generally in excellent condition.

Pages 442-443. The surgeons, nurses, and employees justly share in due gradation the commendation the work of the general hospitals have won.

Page 443. In skill, devotion, and acumen the Medical Corps never stood higher, and its excellence is a credit to the military service.

Page 443. For the prompt payment of the troops in the Philippines, the energy and determination of the officers of the Pay Department to overcome all obstacles in the performance of duty assigned them must be acknowledged, etc.

Page 444. The arms and equipments issued by the Ordnance Department are generally very commendable and were probably never better suited for their purpose.

Page 446. The reports indicate excellent military and business administration and methods at the arsenals, ordnance depots, and powder depots, etc.

Page 447. Rock Island Arsenal—commendation is due throughout.

Page 450. Conduct of affairs on cable ship *Burnside* especially worthy of commendation, owing specially to the efforts of the master, Captain Laffin, and Capt. G. O. Squier, Signal Corps.

Page 451. The reports from all quarters show the operations of the Signal Corps to be very satisfactory. In the Philippines grave obstacles and difficulties have been faithfully met and overcome.

Page 454. Nothing in the army system deserves greater commendation during the past four years of active service in the field than the faithful, admirable, intelligent, and honest handling of its public funds.

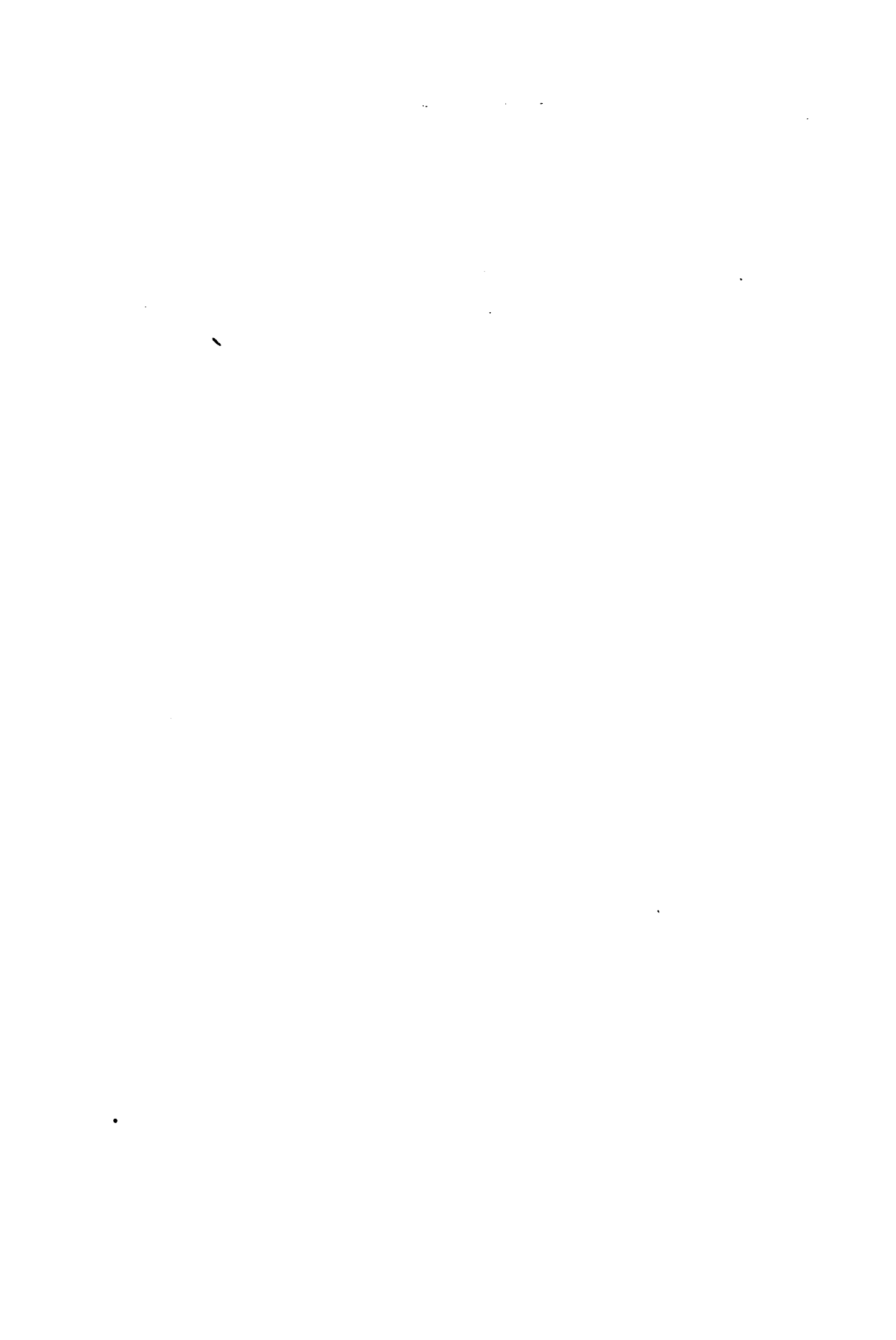
Page 466. The Soldiers' Home, District of Columbia, was in a most creditable condition throughout. The care of the old soldiers and the comforts afforded them speak well for the efficiency of the officers in charge.

Page 467. The various Branches of the National Home for Disabled Volunteer Soldiers were in excellent condition generally, and the officers efficient and painstaking, with the welfare of the nation's wards ever in view. The Board of Managers showed marked zeal in their successful efforts to properly perform the trust imposed upon them.

Page 480. That the Army performed its duties well and bore its hardships uncomplainingly is well known by all who have kept in touch with it since the opening of the Philippine insurrection. In fact, it has only done those things which we expect of it and which we will continue to expect of American soldiers.

Page 481. The companies of native scouts (Philippines) have so far proven satisfactory, with one or two exceptions.

Page 484. In the conduct of the American Army toward the Filipinos the exercise of unexampled patience is claimed, and the humanity of the troops engaged has no parallel in the history of dealing with Asiatics.



REPORT  
OF THE  
INSPECTOR-GENERAL.

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WAR DEPARTMENT,  
INSPECTOR-GENERAL'S OFFICE,  
*Washington, D. C., September 29, 1902.*

**SIR:** I have the honor to submit the following report of the operations of the Inspector-General's Department for the fiscal year 1902, embracing some items having direct and immediate touch with the life and comfort of the troops. These are generally matters of detail, of which some notice is essential from year to year to secure the desired excellence in the current important matters concerning the military establishment which receive the attention of higher authority.

It is essential to the maintenance of an army in anything like a satisfactory state of efficiency that not only should the entire machinery of the service, but also its inspection, from minutiae at initial point to final action and file of report in the central office, be kept in the best possible working order, so that the irregularities, deficiencies, and judicious criticisms shall receive prompt and effective remedial action, and wherever excellence prevails and the matters and persons are specially deserving commendation they shall be clearly and promptly presented. The present system secures prompt action and the best results in connection both with the condition of posts and commands, and also of property and disbursements. The test of war has doubly proved this; for the excellence of the Army is universally admitted; and no charge of malfeasance or corruption has held against any Regular officer. If superior worth and the highest honesty and efficiency is attained under our present military system, what more is desired? Our experience since 1898 demonstrated that our methods attained the very best. It may not be difficult to find something worse. This has the approval of our worthiest soldiers and statesmen throughout our history.

Under your instructions of August 10, 1901, I was absent on an inspection tour at Honolulu, H. I., Peking, China, and the Philippines from August 10, 1901, to March 6, 1902, and some of the results pertaining thereto are included under the various subjects in this report.

There have been no changes in the permanent personnel of this department during the year; but three officers detailed in it under the provisions of the act of February 2, 1901, were relieved and three others were detailed in their stead. As the law of February 2, 1901, hardly gave enough inspectors for the essential inspections, local

authorities have felt compelled to assign more to the duty; as seems to be the case in other staff duties also, as necessity knows no law, and the necessity for ubiquitous and organized inspection presses upon every officer responsible for success in face of the enemy only less than to provide for such absolutely necessary duties as quartermasters to unload and care for and forward stores, for instance. It is a historical and recognized feature of our military practice that much of the most trying work in several departments was done at the farthest front by temporary officers. It is only fair that their names shall be known and their merits recognized, and also this ambidextrous adaptability of the American Army which proves that its methods have habitually prepared it to meet every emergency successfully. The promotions by selection in times of peace have, perhaps, been the weakest point in our system practically.

Since the close of the fiscal year, Colonel J. P. Sanger, inspector-general, has been promoted to brigadier-general of the line, dating from July 23, 1902. Lieutenant-Colonel Charles H. Heyl was, in consequence, promoted to colonel. This naturally causes some transfer of duties; and Colonel Vroom and Lieutenant-Colonel Chamberlain have been ordered to the Philippines to take over the duties there recently vacated, and other officers have been recommended in their proper turn.

Coming down to service in the Philippines, where <sup>Development in our latest field.</sup> the prompt forwarding of reports has been greatly hampered by lack of rapid transit and modern mail facilities, we find a letter dated April 26, 1901, was addressed to the inspector-general, Division of the Philippines, on the subject. Possibly it had already attracted attention independently. But however originated, with the hearty cooperation of commanders and inspectors upon lines indicated therein, united effort has been apparently productive of excellent results, and now the inspector there not only furnishes the post commander with a written statement of irregularities and deficiencies upon completion of his inspection, but, before leaving the post or station, receives the commander's report of remedial action taken thereon and forwards it as an inclosure to the inspection report. So expedition and efficiency are secured amidst unusually adverse surroundings.

As indicative of the prompt and beneficial results achieved, Colonel Sanger, inspector-general Division of the Philippines, in his annual report, dated June 30, 1902, says:

As far as practicable the necessary remedial action by company, post, brigade, and department commanders and their dependent staff officers appears to have been taken on all inspection reports now passing through these headquarters.

What could be more prompt and effective, as the chief of staff is an officer of the Inspection Corps, and the division commander (General Chaffee) was formerly on duty in it as inspector-general of the Departments of Arizona and Colorado, and nothing can daunt the workers nor delay this work, which lies so near the morale and center of every military organization? Can not this condition be faithfully maintained universally, and the inspector continue always to recognize the results of his work?

The operations of the present system may be more readily understood from a glance at the following table, compiled from the records of this office for 100 of the posts inspected during the year:

Number of inspection reports considered.	Number of irregularities and deficiencies.							Number of subjects extracted in this office to Secretary of War, Lieutenant-General, chiefs of bureaus, etc.
	Furnished by inspectors to post commanders.	Additional noted or furnished by higher authority.	Additional noted in this office.	Total.	Remedied or explained.	Awaiting result of action taken.	No action taken up to receipt of report at this office.	
100	1,184	46	102	1,332	932	207	193	539

This is more than 1,000 items which accomplished officers considered, when in immediate contact with the troops, would benefit the service if given prompt consideration; and about half of these reached the highest authority having ultimate control of these matters, and final and complete action was taken already on five-sixths of them. About a dozen items concerning each command, or over a hundred annually for each inspector (or several thousand in all) are thought worthy of such notation that about half reach the several authorities in the War Department, in order that affairs affecting the soldiers shall be kept as perfect as practicable. In mere labor this inspection of troops may be but a moiety of the work performed; the other branches, such as money, property, investigations, etc., may be given a moment's consideration later on. As a supplement to the powers given commanders, no better system has ever been applied in a free country. Through this the honorable Secretary of War, the bureaus of the War Department, and the commanding generals gain an independent view of the condition of the Army in all its ramifications; and this has proven its utility in innumerable ways as a potent agency toward the promotion of economy and efficiency and the contentment of the soldier—as the orders issued, the instructions given, the boards appointed, and other action taken, or the consensus of opinion of experienced officers which is collected and presented will attest, from the Sunday rest order in 1889, to the abolition of the blanket bag in 1902.

As there were some 582 posts inspected, the indication is easily deduced for the whole Army, but anything more explicit may not now be needed.

The experience of mankind in commercial, professional, and scientific communities has for years been tending directly to the organization of all forms of business into specialties, until we have reached that stage where only through such agencies can successful general results be looked for. The business of this department, in its several branches, is conducted as a specialty, and every defective link is discovered before the chain is put to the final test; no irregularity can go very long undetected, and all the interests of the service are safeguarded, and all public plunder restrained or kept at bay, and every excellence is clearly announced and the merit of each and all recorded and reported faithfully.

During the year the inspection service has been well and efficiently conducted, and the inspectors have discharged their duties with great fidelity and often in the face of many difficulties. In this connection Colonel Sanger remarks:

The inspection of interior posts has involved long journeys, many discomforts, and considerable personal risk. The trails are so difficult and the streams such



serious obstacles that the execution of Division General Orders, No. 58, of 1900 (requiring quarterly inspections) has not been possible in all cases. Nevertheless, by frequent journeys, at odd times, and by taking advantage of all opportunities, the duty of inspection has been well performed.

In the Journal of the Continental Congress of December 11, 1777, will be found a resolution expressing the opinion of Congress that it is essential to the promotion of discipline in the American Army, and to the reformation of the various abuses which prevail in the different departments, that an appointment be made of inspectors-general, to "be conferred on experienced and vigilant general officers, who are acquainted with whatever relates to the general economy, maneuvers, and discipline of a well-regulated army." Under this resolution an inspector-general, with the rank of major-general, was appointed, and a corps of sub-inspectors and brigade inspectors, having regimental rank, was announced in orders. The inspection branch was thus inaugurated and became an important factor of the Army; and so essential to its welfare was it considered by George Washington when general commanding that it received, after more than five years of experience, his entire approbation and the expression of his sense of public obligation for the meritorious services rendered during the crucial test of war. The expressed intention of the resolution has, it is believed, been fully met in appointments to, and details in the corps; and experienced officers who were known to be able, zealous, conscientious, discreet, and possessing high professional attainments, have habitually been selected. Fully equipped for the exercise of subordinate command upon joining the corps, the experience gained in it by the observation of persons in command or official responsibility and the different methods adopted to enforce law, regulations, and orders, the administration of various posts and the best way to effect uniformity, economical administration, better discipline, and a higher state of efficiency—all of which is included in the inspector's sphere of duty—adds to his efficiency and enables him, upon being assigned to higher inspection duty, to readily perceive what is lacking and where attention is necessary, so that the desired standard may be attained and the public interests properly safeguarded. The recent application of the general commanding the Department of the Missouri, illustrates that an experienced inspector should be thoroughly well fitted for the exercise of the most exacting duties. And it is a great source of pleasure to have so many of those who have served in the Inspector-General's Department during my administration and before, both as captains and field officers, receiving appointments as general officers—and eminently filling them—a slight recognition of their past most valuable and meritorious services in both the line and staff. Such names as Lawton, Hughes, and Sanger have gone from the roll of the regular establishment, and Otis, Chaffee, Hall, Kent, the Sumners, Baldwin, and Jesse M. Lee, the detailed inspectors-general. What has been accomplished by them, as well as by those who have remained in the Department, during the past years of most creditable duty, zealously, loyally, and effectively performed, is highly appreciated and gladly acknowledged. The system which produces such merit is worthy, when found, of making a note of.

During the active service of the last few years the loss of General Lawton upon a Filipino battlefield made a gap in our own ranks that all the Army and the nation felt. His services leave an example well to follow in all that is most soldierly. The corps has assiduously attempted to perform its full duty to the finish, but still some worthy

people criticise such men as remiss, though it serves to mark the critics at least as much as it can annoy or injure such soldiers.

The benefits from fearless, frequent, and faithful inspections working together for a common purpose and well directed, like a foot-ball team, have been illustrated in every branch of military duties, whether affecting the training and instruction of the officer, or the comfort of the soldier at the farthest front and amid all the discomforts of travel, when it too often seems as if every man's hand was against him; or the military outfit and qualities essential to the best success; or the handling of money and property and the care of stations and stores, upon which so much more than economy—even honesty—depends. The system established by Washington, Steuben, and Hamilton still serves its purposes well, aiding to its utmost to encourage excellence and to minimize all that is not good.

The following table shows in detail the amount of all the various classes of inspection duty performed by this Department, or under its auspices, since July 1, 1889, from which a very good idea may be obtained of the volume of the work performed and its growth. It indicates during that time the inspection of about half a million of men; and the simultaneous examination of property for condemnation amounting to over one hundred million of articles, of which about five million dollars' worth was saved to the Government; and the disbursements inspected amounted to nearly two billion of dollars; and it is believed that all those who founded or have encouraged the system, both since and prior to the adoption of our national Constitution, could hardly have expected more, and, with at least some of the results, our superiors have been satisfied. Though as quiet as dew, and falling upon all alike, it has not been ineffective, and has had the constant supervision and watchful and organized care that such successful team work always requires. But those who have felt the halter draw may speak evil of the work occasionally: though the most worthy have habitually sustained it and never found it too drastic, but have always been consistently appreciative.

*Statement of work performed by officers of the Inspector-General's Department since July 1, 1889.*

Fiscal year.	Money.			Property.			
	Number of inspections of money accounts.	Amount involved.	Number of inventory and inspection reports.	Total number of articles presented for inspection. <sup>a</sup>	Total cost, reported and estimated, of articles inspected.	Cost of articles condemned.	Cost of articles retained in service.
1889-1890.....	1,088	\$57,659,630.26	1,934	.....	.....	.....	.....
1890-1891.....	1,304	62,156,805.13	1,673	.....	.....	.....	.....
1891-1892.....	1,516	67,233,897.40	1,212	183,554	\$252,330.20	\$201,566.75	\$50,763.45
1892-1893.....	1,410	64,969,185.49	2,442	1,775,059	630,368.86	427,695.70	202,673.16
1893-1894.....	1,468	65,667,718.74	2,392	2,150,179	755,291.61	662,474.75	92,816.86
1894-1895.....	1,145	76,119,201.05	2,212	2,152,003	863,271.43	685,695.35	177,576.08
1895-1896.....	881	72,098,368.53	1,634	4,879,121	1,332,206.50	1,235,955.65	96,250.85
1896-1897.....	943	70,184,472.94	1,731	3,382,088	2,459,251.61	1,662,956.98	796,294.63
1897-1898.....	713	62,568,713.32	1,592	1,779,870	1,706,014.93	914,669.83	791,345.10
1898-1899.....	946	350,855,522.73	3,425	9,380,070	2,733,686.21	2,418,076.27	315,609.94
1899-1900.....	1,406	287,700,522.05	3,521	54,134,386	10,009,897.93	8,689,350.88	1,320,547.05
1900-1901.....	2,433	378,774,241.76	6,168	22,516,219	6,372,290.35	5,880,128.59	542,161.76
1901-1902.....	1,513	245,356,306.78	7,503	13,541,545	5,078,079.38	4,533,874.94	544,874.94
Totals.....	16,766	1,861,344,586.18	37,439	115,874,094	32,192,689.01	27,262,445.69	4,930,913.82

<sup>a</sup>Including units of weight and measure. No inventory and inspection reports were received at this office prior to February, 1892: and the supply departments have not furnished the information.

*Statement of work performed by officers of the Inspector-General's Department since July 1, 1889—Continued.*

Fiscal year.	Posts and commands.	Ungarrisoned posts, depots, hospitals, arsenals, soldiers' homes, etc.	National cemeteries.	Colleges.	Recruiting rendezvous and stations.	Special investigations and reports.	Transports.	Total inspections.	Number of students inspected.	Number of persons inspected, exclusive of students.
1889-1890	117	21	.....	48	.....	.....	.....	3,208	.....	.....
1890-1891	87	109	61	53	36	21	.....	3,344	.....	.....
1891-1892	95	80	79	79	42	44	.....	3,147	.....	.....
1892-1893	91	72	43	78	23	26	.....	4,185	.....	.....
1893-1894	90	50	51	82	27	28	.....	4,188	.....	31,693
1894-1895	55	45	12	38	17	25	.....	3,549	.....	35,271
1895-1896	82	57	11	104	3	7	.....	2,779	13,011	40,161
1896-1897	80	69	52	82	29	13	.....	2,999	12,645	42,748
1897-1898	65	37	8	.....	11	.....	.....	2,426	.....	.....
1898-1899	91	148	34	2	21	31	.....	4,698	.....	.....
1899-1900	199	70	33	91	55	575	73	6,023	7,311	135,955
1900-1901	864	229	47	82	68	194	248	10,333	7,448	73,937
1901-1902	557	101	33	114	81	136	128	10,192	10,109	54,497
Totals.....	2,473	1,088	464	853	413	1,100	449	61,071	50,524	414,262

It will thus be seen that more than 61,000 inspections were made in the thirteen years considered—an average of about 4,695 per year, including nine years of peace and a small military establishment.

To say that these duties were arduous and exacting, would only be to repeat what is already well known throughout the Army; and that they have been performed with the greatest zeal and fidelity by the officers upon whom they have devolved is believed also to be sufficiently in evidence. It need not be pointed out which part of this work has been more effective or attracted most attention: but it will be easy for any to believe that throughout the length and breadth of the military service it has borne good fruit.

The following table shows how this work was distributed among the inspecting officers much as the disbursements among paymasters are annually indicated in the reports of the Paymaster-General.

It may be noted how few men in such a group saw service in our civil war, and how the relative rank of these excels that of many who are now pressing to the front. This is equally noticeable throughout the Army, and while leadership in battle is intrusted confidently to the old veterans, whose scars prove their trustworthiness and whose experience amid every exigency of war is valuable, still the places which knew them will know them no more forever, and their services become as a tale that is told: those who replace them doubtless have equal merit.

Summary of work performed by officers of the Inspector-General's Department during the past year.

Officers.	Disbursements.		Posts, Branches, depots, hospitals, arsenals, and prisons.	Ungarrisoned Posts, Soldiers' Homes, Branches, depots, hospitals, arsenals, and prisons.	National cemeteries.	Colleges, yongs and stations.	Recruiting rendezvous and stations.	Spec. el. investigations and reports.	Inspection of property.	Transports.	Total Inspections.	Ascertained cost price of property inspected.	Number of students inspected.	Number of persons exclusive of students.		
	Num-ber of inspec-tions.	Amount in-volved.												Inspected in ranks.		Absent.
														Officers	Men.	
Brig. Gen. J. C. Breckin-ridge.....	10	\$963,776.42	53	5				2	116	70	\$101,337.25	61	1,433	38	780	
Col. G. H. Burton.....	5	1,050,799.97	4	2				21	148	148	96,353.49	109	3,149	20	841	
Col. P. D. Vroom.....	74	15,682,155.24	16	3				4	135	247		97	2,130	36	769	
Col. J. P. Sanger.....	2	70,543.16	7	4				6	9	14	153,565.15	1	611,955		69	
Col. E. A. Garlington.....	110	15,988,973.54	4	6				9	103	258	29,284.23					
Lieut. Col. C. H. Heyl.....	86	50,589,040.07	7	4				7	25	124	2,778.22					
Lieut. Col. Thos. T. Knox.....	22	12,248,272.10	10	5				1	5	43						
Lieut. Col. S. C. Mills.....	24	10,891,254.09	6	6				2	8	174	201,511.96	104				
Lieut. Col. J. L. Chamber-lain.....	91	41,820,063.29	10	10	1	3	2	18	114	268	212,302.15	262	100	2,633	48	1,599
<i>Detailed under act of Feb. 2, 1891.</i>																
MaJ. J. M. K. Davis.....	48	5,203,519.04	18	14					92	180	25,116.90	64	1,894	23	836	
Ma. E. D. Thomas.....	38	2,387,961.65	32	1				8	64	143	5,218.03					
Ma. F. A. Smith.....	11	747,667.44	6	4				7	94	111	18,491.61	35	1,837	34	1,604	
Ma. Jas. S. Pettit.....	43	7,818,945.48	4	1				4	115	171	42,923.45	54	1,331	62	1,237	
Ma. H. K. Bailey.....	35	817,470.64	22	1				4	84	147	28,108.65	74	1,161	47	1,037	
Ma. Frank West.....	24	7,058,181.63	8	1				6	105	161	214,837.95	60	1,502	24	509	
Ma. R. D. Potts.....	38	5,697,262.89	7	2				3	75	135	27,735.28	452	1,177	1,658	39	484
Ma. Alfred Reynolds.....	35	2,309,540.37	12	2				5	84	140	42,170.66	182	111	2,433	75	1,066
Ma. T. R. Adams.....	46	3,350,665.37		2				2	95	166	49,451.67					
Ma. J. A. Irons.....																
<i>Acting inspectors-general.</i>																
Col. Simon Snyder.....	57	1,291,575.00		3					3	3	3,110.25					
Lieut. Col. L. H. Brucker.....	3	834,076.61		2					20	126	20,777.58					
Lieut. Col. S. M. Wilson.....	19	3,514,322.57		2					9	20	4,562.65					
Lieut. Col. D. B. Wilson.....	37	2,827,458.79		11					117	141	118,955.41					
Lieut. Col. W. S. Edgerly.....	6	24,828.48		6					107	162	35,767.69					
Lieut. Col. L. H. Strother.....									6	12	3,942.65					
MaJ. Philip Reade.....																

<sup>b</sup> Officers and men at the various branches of the National Home for Disabled Volunteer Soldiers.

<sup>c</sup> Includes officers.

Summary of work performed by officers of the Inspector-General's Department during the past year—Continued.

Officers.	Disbursements.		Posts.	Ungarrisoned posts. Soldiers' Homes, Branches, depots, hospitals, arsenals, and prisons.	National cemeteries.	Colleges.	Recruiting investigations and stations, ports.	Inspection of property.	Transports.	Total inspections.	Ascertained cost price of property inspected.	Number of students inspected.	Number of persons exclusive of students.			
	Number of inspections.	Amount involved.											Off-cers.	Men.	Off-cers.	Men.
<i>Acting inspectors-general—Continued</i>																
Maj. H. E. Tuthery	62	\$10,088,173.66	16	2		6	1	102	1	191	\$87,202.10	282	08	1,809	23	641
Maj. J. D. C. Hoskins	61	7,322,077.02	10	5		7	13	105	1	205	29,564.67	729	115	2,592	54	902
Maj. Henry Wygant										186	40,119.07		81	2,083	72	1,796
Maj. F. H. French	48	887,542.56	45	1		3	89	3		117	27,037.12		119	2,578	88	2,095
Maj. A. L. Dade	13	214,368.20	9	1		1	83	1		367	78,614.89		128	2,207	85	1,953
Maj. E. B. Bolton	51	462,217.88	79	1		1	236	1		264	60,686.91		30	581	19	452
Maj. F. K. Ward	75	341,253.22	69	1		1	123	1		37	3,705.26		49	1,235	35	831
Maj. C. W. Mason	12	9,410.66	11				14			123	54,583.11		26	676	23	391
Maj. F. F. Eastman	7	17,901.63	17				5			150	46,643.23		29	837	37	828
Maj. G. K. McGinnigle	23	811,074.52	5				2			127	15,632.88					
Maj. E. B. Fuller	32	1,128,069.99	6				1			38	29,008.89					
Maj. L. C. Scherer	2	28,780.47	6				1			2						
Maj. L. C. Watts	17	145,684.85	48	1			1			2						
Maj. J. C. Oresham																
Maj. J. F. Kingsbury	5	8,195,282.84								38	6,318.48					
Maj. W. H. Thomson	1	14,323.37	7							22	1,947.65					
Maj. G. H. Preston	16	5,533,386.90								56	97,207.78					
Capt. J. B. Dyer	38	2,390,175.61	9			1	4	27	8	145	63,523.84		66	2,550	41	1,178
Capt. S. A. Clough	57	1,417,353.75	24					92		135	13,408.14		68	2,391	40	1,836
Capt. Orr Bundry	16	2,905,727.02	3					54		97	17,106.36					
Capt. F. D. Hoyle	81	17,834,209.74	14			1	15	78	4	282	245,774.20	1,942	105	2,264	21	730
Capt. F. W. Sibley	3	368,687.60						147		12	8,415.27					
Capt. G. W. Ruthers								9	5	14	2,512.83					
Capt. P. W. West	3	567,583.18				1		34		34	14,931.15					
Capt. W. M. Wright	28	1,290,916.65	1			2		11		16	11,671.32					
Special Inspectors						71	3	4,140	29	4,273	2,116,528.55	5,211	2	28	1	2
Total	1,513	245,356,306.78	582	105	83	114	81	136	7,503	10,192	4,474,118.64	10,109	1,763	65,081	6,987	24,381

<sup>a</sup> In many cases this includes more than one inspection of the same funds.

<sup>b</sup> This number includes more than one inspection of the same transport.

<sup>c</sup> These numbers, in some instances, include more than one inspection.

During the year there were 10,192 inspections of various kinds made by officers of this Department—permanent, detailed, and acting—or about 28 per day, including Sundays. But there are hardly 28 officers designated by law to do this duty; so the cooperation of all to attain the best results for the public service is demonstrated. And what the Army has accomplished proves that the best military results were fairly attained and much that is outside the strict tenets of their profession was often successfully required of these well-trained and disciplined men, with benefit to all concerned.

To be fully effective before ultimate filing, some of these reports call for the action of several bureaus and submission to higher authority, as for instance the hundred items submitted in relation to the fortifications prior to the recent maneuvers around New London, Conn. But no stone is left unturned that can help insure that every one of the thousands of items reported will receive due consideration and complete remedial action, and also that the condition and comfort of the troops wherever located are as perfect as the means at hand will permit.

Following his previous custom, the Paymaster-General of the Army, in his annual report for the fiscal year 1902, states that the mileage paid for the inspection of the Army was \$52,749.71, and that of this amount only \$8,446.39 was paid to officers of the Inspector-General's Department, which is less than one-sixth of the whole amount. This is but one indication how much more economical is the general inspection of the Army, so widely scattered, than any other specific system. The economy as well as the efficiency of the general inspection should be duly and fully considered.

#### ARMY TRAINING AND INSTRUCTION.

As to the Army economy, efficiency, instruction, or discipline, recent orders from the Honorable Secretary of War (General Orders, No. 85, 1902, Headquarters of the Army) indicate that a serious and persistent effort by all hands to elevate it to a higher condition than ever before attained is more than contemplated—it has begun. Some special reasons and need for this effort are there given.

General Orders, No. 155, Headquarters of the Army, November 27, 1901, referred to in the order above cited, establishes a comprehensive system of training and general instruction for officers of the Army; and it seems a very progressive step and one fraught with the largest promise of beneficent results. Beginning with the War College, at Washington Barracks, D. C., for the most advanced instruction, the system embraces also a General Service and Staff College, at Fort Leavenworth, Kans.; and such special service schools as the Artillery School, at Fort Monroe, Va.; the Engineer School of Application, at Washington Barracks, D. C.; the School of Submarine Defense, at Fort Totten, N. Y.; the School of Application for Cavalry and Field Artillery, at Fort Riley, Kans.; the Army Medical School, at Washington, D. C.; and at each military post an officers' school for elementary instruction in theory and practice as well as the company or other noncommissioned schools, and even the children have opportunities given them. All these (taken in connection with the Military Academy and actual service), embracing, as they do, almost or quite every phase of military life, theoretical and practical, even to minute details, when once

fully organized and in active operation, would hardly seem to leave anything to be desired in the way of instructing and training the young officers of our Army and every individual in touch with it—the more especially so since these institutions have received the approval of Congress, which has made liberal appropriations for their maintenance and support; even the officers detailed at colleges are to actually have another national duty to perform.

Those who remember how meager instruction once was at our military posts, and that such great names are associated with the establishment of these special military schools as General Grant with reviving the Artillery School at Fort Monroe when he was General Commanding the Army, and General Sherman establishing the Infantry and Cavalry School at Fort Leavenworth, and General Sheridan establishing the Cavalry School of Practice at Fort Riley, may well be thankful that they have seen this day, and that the reign of the sutler has been wholly abolished at last. The spirit of the new system seems to be that the brightest minds will always have an opportunity to apply themselves and be recognized; and even the dullest will acquire and perform all it can. Can the future fulfill such promises?

The excellence of our Army in 1897 as a fighting force may possibly never be excelled, at least for some years to come; as it had all the benefits of the best instruction and discipline that civilization can give, and all that experience on our illimitable mountains, deserts, and plains against the aborigine could give—one of the most redoubtable, ruthless, and indomitable foes any soldiers ever faced. That period has gone forever; and is almost as difficult to appreciate by the coming generation, who miss the experience, as are the Crusades. The total per capita expense in 1897 was estimated as about \$934.71, and last year it was announced as \$1,014.66. Similarly the property submitted on inventory and inspection reports for condemnation amounted to \$99.09 and \$103.54. Say this is an increase of about 5 per cent, how many millions are indicated in the aggregate by such difference per capita are easily calculated, and doubtless as easily explained if thought worth while. The expense of such warfare in remote, difficult, and uninhabited regions can probably only be rivaled now in Alaska, where the price of an egg sometimes seems phenomenal, and the propriety of having desiccated eggs for sale is questioned by those who do not have to try to exist there.

Under paragraph 969, Army Regulations, the Military Academy and the service schools (in so far as the latter are distinct from the posts) are to be inspected under specific instructions given in each case by the Secretary of War or the Commanding General of the Army. The benefit of regularly recurring inspections by officers of this Department is generally recognized, as the communication of the general commanding the Department of the Missouri of September 22, 1902, evidently beareth witness, and the regular inspection of all these colleges and schools by officers of the Inspector-General's Department when on their annual tours is entirely feasible, and also specially whenever the Honorable Secretary of War may desire.

#### MILITARY COLLEGES.

The conditions of foreign war and of insurrections in distant island possessions, which have confronted the Army during the past four years,

very naturally interfered to a considerable extent with the detailing of officers in active service as professors of military science and tactics in civil institutions of learning. The officers were needed at the front, and so the colleges, to a great extent, had to be temporarily neglected for weightier matters that were pressing. With the advent of a more settled state of affairs, the important duty of imparting military instruction at these institutions is again claiming and receiving its due share of attention, and the number of officers detailed at them has been gradually increasing. For the past year there were 74 of them as against 54 for the preceding year. None were inspected in 1898.

The question as to what is the best method to derive full benefit for national, patriotic, and military purposes in these colleges is an absorbing one, and may deserve the most careful consideration and every effort toward still further improvement; though the suggestion that all but purely military schools be abandoned is not concurred in and could hardly be seriously considered. Nothing affords a better basis for superior military training and the constant excellence of officers than broad and catholic culture, as the Germans have clearly demonstrated. And if the utmost possible can be grafted and accomplished at our leading institutions of learning, and creditable results obtained, the whole country should feel the benefits in proper military knowledge.

Something more and better may be accomplished now under General Orders, No. 94, Adjutant-General's Office, current series, than the utmost that seemed possible for these institutions in 1890, when General Orders, No. 15, Adjutant-General's Office, for that year, were promulgated. So General Orders, No. 94, are timely so soon after a successful foreign war, and in view of the demand for more officers than our Military Academy habitually turns out. To confine commissions wholly to its graduates, even at the possible risk of narrowing the selection or alienating the Army from the warmer sympathies of our people, has some advocates; but it seems that a broader and more liberal system should prevail. If a dozen vacancies were filled every year by competitive examinations of these college graduates, it is believed encouragement would be given them and a fine class of officers be obtained for our military service. Is not the time ripe for this? Certain colleges need some such practical result.

Since General Orders, No. 15, Adjutant-General's Office, 1890, were issued, great improvements have been effected in various directions. The gross growth is sufficiently evident; and an equal or greater improvement in quality seems now provided for. What, if any, deterioration is evident within recent years—say five—is perhaps less important and may not need to be set forth in current reports, since steps for improvement have already been taken.

There are 119 colleges that are furnished with Government arms and equipments, and for the last fiscal year 74 of these had officers of the Army detailed as professors of military science and tactics, and all but two of these were retired officers. From inspection reports received there seems to be a demand among these institutions preferably for young graduates of the Military Academy as instructors instead of retired officers, a want which may now be readily supplied under General Orders, No. 94, Adjutant-General's Office, current series. But it should be borne in mind that



officers of mature age and ripe experience, if of equal natural ability, are apt to carry more weight and receive more considerate attention than mere callow youths, fresh from the schools, from such learned men as habitually compose our college faculties.

Among the military professors at these institutions of learning last year, five grades of rank were represented—there being 2 colonels, 3 lieutenant-colonels, 12 majors, and 31 captains; the remainder being first lieutenants.

As a rule, these officers were satisfactory in nearly every way and in harmony with both students and the faculty and well sustained by the faculty; but in some instances exceptions were noted by the inspectors. It was stated of one officer that during the year he "has rarely been present at the school, and has not even resided near it. During the year he had personally superintended no drills or recitations." Fortunately, such cases as this are extremely rare and are easily remedied when called to attention. To ameliorate the injuries to the regiments from absenteeism, can not the law authorize these one hundred officers additionally to the regimental force and so protect the colleges from such interruptions as they have recently experienced for successive years in their military curriculum—and also establish for them the same methods of property accountability as are adopted at West Point and in the Army, and allowances for these professors equal assistant professors there? These institutions are established by law and naturally become an essential part of the national military system, and seem fairly entitled to equal consideration and constant provision.

Students. Sixty-five colleges report an aggregate capacity of 40,290 students so far as specifically reported; for some of them reported their capacity as "unlimited." At these institutions there were 33,283 male students actually enrolled, of whom more than 31,000 were over 14 years of age.

In the military departments of these colleges there were 14,625 young men enrolled so far as reported, maintaining an average strength of 12,336; and they ranged in age from about 14 to 24 years.

What is the military spirit of these institutions or the military information or discipline they can or care to impart does not depend wholly or principally on the detailed professor of military science and tactics, but largely upon the interest of the governing power of the institution, its faculty, or board of trustees. But the army officer must do his part tactfully and creditably.

Organization. These military students were organized, at the different institutions, into 4 regiments, 53 battalions, and 206 companies, with 214 field and staff officers, 877 line officers, and 9,649 noncommissioned officers and privates.

Drills. During the year these various organizations had the following number of drills, viz: 7,274 infantry, 1,407 artillery, 536 cavalry, 128 competitive, 833 signal, and 131 exhibition drills; showing that attention to the infantry exercises far exceeded that given all the others.

Parades. They had also during the same time 1,029 dress parades and 127 street parades.

Field work. Several problems in minor tactics were also worked out at some of the institutions, and there were 53 practice marches, and 55 encampments were held.

**Guard mounting.** It was reported that guard was mounted and maintained daily at nearly all these institutions. At one or two of them guard mount was had during only a month or so of the school year.

**Target practice.** So far as reported, target practice was had 417 times at twenty-two of the institutions—none being had at the others. The “shoots” were said to be well attended when held. There were also numerous gallery practices.

Such items may indicate the dry bones of a graded system. But to breathe into it the breath of life and let the nation find in this body of instructed youth a recourse against the day of public war, with all the devotion and sacrifices it calls for, and some of that guidance in military matters which every neighborhood then needs, presents a problem which deserves earnest, patriotic effort to fully solve against that day.

In this connection it may be suggested that any intercollegiate military contest that might be established, and held annually at some convenient time and place during the college year, would most certainly prove a very effective stimulus to the interest of the military students in their military duties. Target practice, or firing, seems the most practicable feature to employ in developing a friendly intercollegiate rivalry; and, with a suitable prize offered to the winning college target team, could hardly fail to arouse similar and perhaps even as much interest as the intercollegiate boat races, football, fencing, and baseball matches, over which students become so enthused. This would add a quickening impulse to their interest in and zeal for their military duties generally; and, it is believed, would prove in every way beneficial to them and through them to the country at large. Or if representative squads or organizations from some of these institutions could assemble for competitive drill and maneuvers, something more might be learned or greater interest be aroused. But some professors might feel that the interest was too great if not in their particular courses.

**Theoretical instruction.** At some of the institutions it was reported that no theoretical instruction in military science was given; but as a rule it was. At 14 colleges there were 195 recitations during the year in *The Art of War*; at 53 colleges there were, so far as specifically reported, 1,266 recitations in *Drill Regulations*; and at 17 colleges there were 95 recitations on the *Organization and Administration of the Army*. At nearly all of the colleges the professors of military science and tactics delivered lectures to the cadets on military subjects, and it was reported that 616 such lectures were delivered during the year. The recitations and lectures were stated to be generally well attended by the military students. Perhaps it would be of more consequence if it could be announced that any dozen of these thirty-odd thousand had fairly mastered the preliminaries of the profession of arms and were ready to enter its ranks with every confidence in a creditable career. If an opening is given, there is just confidence that this can be attained.

**Productiveness.** From the 65 colleges reporting it is learned that they furnished officers, noncommissioned officers, and privates as follows to the Regular and Volunteer armies, from their former students, in recent wars:

General officers, 29; colonels, 32; lieutenant-colonels, 45; majors, 66; captains, 283; lieutenants, 489; noncommissioned officers and pri-

vates, 1,191; total 2,135. In addition to this, they furnished to the Navy and Marine Corps 62 officers and 178 warrant officers and enlisted men (total, 240)—a grand total furnished to Army and Navy combined of 2,375. Can not a larger record be confidently relied upon in the future? But this demonstrates patriotism in the past.

If any argument is still needed to show the vast importance of military training and instruction in civil institutions of learning, these figures may help to supply it. The possible and actual beneficial results of such instruction and training, properly given, at such institutions, are not to be despised to-day, and contain the promise of greater things. It is undoubtedly one of the best of the means, in a country like ours, which will always have a small standing army, of promoting preparation against future wars: and lack of due preparation is possibly our greatest military weakness. The thousands of young men going forth annually from these institutions pervade every nook and corner of the land throughout all its length and breadth. With such a reserve, trained and instructed, and fitted to at once assume the duties of company officers and noncommissioned officers, much of the work of preparation will always be already performed before the wars come, or at least there will always be a little leaven ever present.

The military departments of some of the colleges were very highly commended by the inspectors; and perhaps an equal or greater number were as severely criticised, or the withdrawal of the military detail recommended. At most of the institutions the conditions were satisfactory and discipline good. Several of the inspectors recommended, as an incentive to the students, the appointment each year of at least one second lieutenant in the Regular Army from one of the colleges in each State; and it was also suggested that it would have an admirable effect if the military course should be made necessary to graduation in each of the schools receiving Government aid.

The military professor at St. John's College, Annapolis, Md., says:

Military education at schools and colleges should be encouraged and assisted by the United States Government by all means possible. As a rule, the martial spirit will be found to be the best and most encouraging at colleges that are poor in funds, as well as the students. Congress might be prevailed upon to appropriate a sum every year that allowed the expenditure of \$25 for each cadet in the military department of all schools and colleges that have a Regular Army officer as instructor. This amount would furnish every cadet with a uniform complete. It would be money well invested. The next most important matter in connection with college military education is for the War Department, under the present regulations and laws, to supply these colleges with the rifle and equipment as now used by the U. S. Army. The four years of instruction in handling this rifle will enable our college graduates to teach and instruct others how to use this rifle effectively, and care for it. An army composed of well-schooled riflemen is the army that will be successful. These colleges can supply many efficient and valuable volunteer officers, as well as for the regular service, in time of need, and it can be easily realized how important it is to have them well instructed in the use of the arms they will be supplied with. It is a pure waste of time, labor, and money to use obsolete arms and equipments.

Maj. Alfred Reynolds, U. S. Infantry, inspector-general, says:

The military schools throughout the country have all the students they can accommodate. It would increase the importance of State military schools if graduation from them was made the first qualification for admittance to the Army from civil life; and, better still, if one or more students making a distinguished record might, at

their option, take the course at the service schools, with the reward of commissions in the Army on successful graduation. The military department in the State schools in this case should comprise a course which would qualify for promotion to first lieutenant.

Maj. H. E. Tutherly, Eleventh Cavalry, acting inspector-general, says:

When a land-grant college really takes hold of military instruction, I believe there is no better service that a young graduate of West Point can be put to than that of modeling a battalion in each State after the corps of cadets at West Point. We have one of these land-grant colleges now, I think, in each State, and at them all there are from 10,000 to 20,000 students taking mathematical and scientific courses very similar to that of West Point, and if 45 officers can work in West Point methods to these 45 battalions, it is obvious that this scheme contemplated in the Morrill act of 1862 can become an adjunct scheme to West Point, reaching yearly from 10,000 to 20,000 students in the States, in addition to those sent to the Military Academy at West Point by Senators and Members of Congress. Thereby the War Department will be able to work back the instruction at our new War College, army schools at Leavenworth, Fortress Monroe, and West Point, until we may have a uniform system of military education through the country, so that the so-called "citizen soldiers" will readily assimilate with the Regular Army when suddenly mobilizing for war.

Lieut. Col. J. L. Chamberlain, inspector-general, says:

This is an important question, and one which should receive consideration by the War College, or the General Service and Staff College, with a view to regulating instruction to be given.

As matters now stand, each institution follows its individual ideas as to military instruction, which ideas are in some instances not wise, and the great advantages to the country which might be secured by such instruction is, in a measure, defeated.

#### INVESTIGATIONS.

The essential flexibility of staff work in our service, far exceeding any other in the world and well suited to the remarkable adaptability of Americans, is worthy of note.

In addition to the actual work of inspection, various other duties usually fall to the lot of the inspector—as, for example, Major Reynolds (Dakota), has had charge at different times during the year of the offices of the Adjutant-General, Judge-Advocate, Ordnance, Engineer, Signal, and Inspector of Small Arms Practice at his headquarters. Investigations pertain particularly to the regular duties of this corps, and are perhaps the most important of these special duties: and a single paragraph may give some impression of the amount, varied character, and location of the work performed by the corps under this head.

Of the 133 special investigations made by officers of this department, as shown by their personal reports to this office, 46 were in the Division of the Philippines, 26 in the Department of Cuba, and 61 in the United States, Alaska, and Porto Rico: or more than half were at the farthest front of military activity. Of these, 31 related to conduct of officers, 16 to insular and municipal government affairs, 10 to the transport service, and 5 each to conduct of enlisted men, accommodations for troops and garrisons, sanitary conditions, and financial claims. Sites for target ranges, camps, and permanent garrisons, disposition of subsistence stores, affairs pertaining to Quartermaster's Department, the conduct of department offices, military and civil con-

ditions, public animals, prisoners, and numerous confidential and miscellaneous matters were also subjects of special investigation, which could be more fully detailed if desired.

#### UNGARRISONED POSTS.

During the year 17 of our old ungarrisoned posts were inspected under A. R. 967. At a few of them matters were found in a satisfactory condition; but as a general thing these semi-abandoned posts were reported as more or less dilapidated and going to decay. Forts Knox, Me., and Montgomery, N. Y., were reported as leaking throughout, and in uninhabitable condition; and of Fort Popham, Me., the inspector said: "The whole appearance of the fort and reservation is, with the exception of the ordnance sergeant's quarters, not a credit to the service." It was stated that at Fort Clinch, Fla., the sea is encroaching and undermining the protecting walls. The location and general surroundings of Fort Pulaski, Ga., were stated to be unhealthy, and the entire abandonment of the post was considered. At five of the ungarrisoned posts inspected all ordnance stores were reported as obsolete.

#### INSPECTIONS OF POSTS, COMMANDS, ETC.

The following table shows the number of inspections made, together with the number of officers and men inspected and absent, the amount of money involved, and the number of articles inspected, by geographical departments, and the Division of the Philippines and from this office, for the fiscal year ended June 30, 1902:

Departments.	Inspections of posts, etc.	Other inspections.	Total inspections made.	Inspected in ranks.		Absent.		Dollars.	Articles.
				Officers.	Men.	Officers.	Men.		
California .....	10	327	337	100	2,633	48	1,599	44,353,456.28	333,481
Colorado .....	12	154	166	111	2,433	75	1,066	3,380,665.87	42,029
Columbia .....	16	175	191	68	1,809	23	641	10,083,173.66	182,351
Dakota .....	8	139	147	60	1,502	24	509	3,722,111.37	24,616
East .....	58	856	914	393	9,899	118	3,309	46,041,961.04	406,706
Lakes .....	7	254	261	97	2,130	36	769	15,988,973.54	571,481
Missouri .....	9	186	195	96	2,556	41	1,178	5,082,426.27	67,089
Texas .....	7	145	152	77	1,658	39	484	2,688,227.97	4,723
Cuba .....	12	505	517	87	2,109	61	1,171	6,504,207.05	1,447,823
Division of the Philippines .....	390	2,410	2,800	673	16,003	522	13,586	42,419,098.48	4,701,743
War Department .....	53	186	239	1	22,349	.....	69	63,801,088.59	38,914
Total .....	582	5,337	5,919	1,763	65,081	987	24,381	244,065,390.12	7,819,856

<sup>a</sup> Includes 11,955 officers and men inspected at the various branches of the National Home for Disabled Volunteer Soldiers.

The foregoing embraces my Asiatic tour of inspection, made last fall and winter, including the commands at Honolulu, H. I., Peking, China, and 53 posts and stations in the Philippine Islands, at which 10,003 officers and men were present when I visited them; and also the inspection of the Soldiers' Home, District of Columbia, 342 men. Though the Philippines had more numerous inspections and a greater

number of articles condemned than all other geographical sections combined, in disbursements it was less than those inspected by this or several other offices.

Departmental changes. The Department of Alaska was discontinued September 15, 1901, and the Department of Cuba on May 20, 1902, the troops in the former constituting part of the command of the Department of the Columbia and those remaining in the latter a part of the command of the Department of the East, after the respective dates. In the Division of the Philippines 4 geographical departments and 15 military districts gave place, in the fall of 1901, to 2 departments and 7 (subsequently 6) separate brigades, and now have been further modified into 3 departments.

Posts. All garrisoned posts in the United States, Cuba, Porto Rico, and Alaska (except Fort St. Michael, which was inspected in June, 1901), and Camp McKinley, Honolulu, H. I., were inspected during the fiscal year.

At the beginning of the fiscal year there were in the Division of the Philippines 554 stations and substations, with an aggregate of 48,474 officers and men and approximately 5,000 native scouts. Active operations were carried on at intervals during the year in Batangas, Laguna, and Tayabas, Luzon; in Samar; in western Misamis, Mindanao; and in Mindoro; while in Cebu, Bohol, Negros, and Leyte, there was more or less agitation on the part of the natives and activity on the part of the troops during the first six months of the year. On June 30, 1902, there were 195 stations, with an aggregate of 34,174 officers, enlisted men, and scouts. With a very few exceptions a thorough inspection of all organizations, stations, depots, hospitals, military prisons, and accounts of disbursing officers in the division has been made at least once and wherever practicable two or three times during the year. The inspectors report a marked improvement in all organizations, and this favorable change, which is largely attributable to their careful and painstaking work and the renewed interest taken by commanders and company officers, was verified by my own observations. The disintegration at the moment of conquest, by establishing more posts than there were companies, is partially amended; and there is not only room for, but a proper spirit of, improvement, which will soon become dominant. The perfection which was demonstrated in 1898 is not beyond approximate attainment again, and emulation even to surpass that is evident on all hands.

Command of posts. The withdrawal of troops from Cuba and the Philippines and the consequent increase of garrisons in the United States, and the abandonment of a large number of stations and substations in the Philippines and the concentration of commands effected there during the year, have materially improved the conditions affecting the efficient exercise of command and will no doubt lead to increased efficiency, better discipline, and more economical administration. The following figures may indicate the concentration effected: On March 1, 1901, the average number of companies per post and station was, for the United States, 1.51; Philippines, 0.93; average garrison, 1.09. On June 30, 1902, for the United States, 2.86; Philippines, 1.30; average garrison, 1.96; showing that on an average the garrisons have been almost doubled in size between the dates mentioned and diminished in quantity. This military illustration of when to scatter and when to concentrate may have a certain interest.

The system adopted in Luzon of having sub-posts so a colonel could command his scattered regiment and the section of country in which it served had merit to commend it, and brought military efficiency, and diminished our overburdened paper work founded on an administration by post instead of under the graded powers of legally established rank. This may be worth considering in connection with our artillery districts also, that their commanders may be given sufficient authority to insure an efficient personnel and defense.

The reports show that the posts have been satisfactorily commanded—a high order of zeal and ability having been displayed by several commanders, for which they were duly credited by proper extracts from inspection reports to the Secretary of War, under A. R. 903. The law, regulations, and orders were generally reported to be properly complied with; justice is legally and properly administered; the troops are regularly mustered and fairly paid; public property is as well cared for as the circumstances permit; and practical and theoretical instruction, although not generally as complete as desirable, has been carried on, as a rule, wherever practicable. The irregularities and deficiencies in these regards noted by inspectors have been called to the attention of the proper authorities for remedial action. The excessive labor imposed upon the troops and those at the front who supplied them with tireless energy throws all other in the shade, but talk about staff work at the rear may help show what this has required: and the difficulties in handling property and making payments, if well depicted, might give a fairer impression also of the work of the troops and of their inspection, which was attempted quarterly in the Philippines, however inaccessible.

**Officers.** The reports indicate the prevalence of harmony among the commissioned officers, and they are generally, especially in the upper ranks, reported to be well instructed and efficient. The newly appointed officers need systematic instruction and discipline to develop their character and aptitude. Many of them serving in the Philippines are in command of companies and troops stationed in towns, mixed up with natives—conditions which do not tend to increase zeal, technical knowledge, and devotion to the faithful performance of the duties of the profession among the inexperienced. Captains are needed with their companies and should not now be detached if it can possibly be avoided. And it is needful to conserve our field officers' powers.

**Absenteeism.** There appears to be an inadequate number of officers to meet the exigencies of war under our army organization, even since the system of detail has been authorized, if one may judge either by the number of absentees in every organization and branch which can be found in service at the front, or in the number of officers who are bearing one kind of commission and doing a different duty. Can we not have a more nearly adequate number authorized? The return of troops for the Division of the Philippines for the month of November, 1901, shows 1,802 officers present and absent; 298, or 16.53 per cent, being absent. These figures do not show the worst evils of the present custom, which fall heaviest upon the organizations of the line farthest to the front, as evidenced by the large number of companies without their captains at a period when the number of inexperienced lieutenants and the exigencies of the service particularly required their presence—such, for instance, as

one regiment in the Fifth Separate Brigade having only 1 captain present commanding a company; 17 organizations in the Fourth Separate Brigade having only 4 captains present, and the company of the Fifth Infantry at San Fernando de Union, of over 140 men, having no officers of its own with it, commanded by a battalion staff officer, etc. Even if the local authorities fancy they can detail officers who will perform quartermaster, commissary, ordnance, or other duties more energetically and satisfactorily than those detailed from Washington, the vacancies so created might well be duly filled, even if for the time it imposed a few extra officers on the Army in places where extra services were most needed for success against the enemy. This number could subsequently be absorbed by ceasing to make vacancies when the strain of trying and dangerous service is passed.

Medal for foreign service.

Attention is invited to the following recommendation of Maj. F. A. Smith, inspector-general, Department of South Philippines:

I strongly urge that an inexpensive medal, preferably of bronze, be issued to both officers and soldiers for all foreign service, and provisions be made to add pendant bars for each additional tour of service in our foreign possessions. Such a badge would be appreciated by its owner and be worn with pride, as well as indicating a distinction of having undergone the hardships and deprivations of a distinctive service attended with many risks not shared by those who serve in the more desirable garrisons of the United States. In this connection I desire to call to mind with what pride the corps badges were worn during the Spanish-American war, and also, in former years more than now, the distinguishing badges for good marksmanship.

The character of the men enlisted during the year might generally be considered good. Desertions are necessarily rare in the midst of an armed semi-civilized enemy, though reported in large numbers at some of the posts and camps in the United States; and an increased number of complaints have been made to inspectors as to the character and fitness for the service of recruits received. A few of these complaints may be briefly summarized as follows:

One post commander: Recruits too light and immature for light-battery service.

One troop: Not more than 25 per cent of recruits received will make good soldiers.

Another troop: Recruits physically and mentally very poor.

Two other troops: Character and fitness for service of recruits received since last annual inspection very poor.

One company coast artillery: Recruits below the standard—some were not fitted for the service.

Two other companies: Recruits received prior to January 1, 1902, are much below the standard in intelligence.

These citations are the exceptions; and, while some of the difficulties encountered by commanders in the training of the soldier may be inferred from them, they do not indicate the character of the enlisted men of to-day when fully trained—the men who are proud of their calling as the soldiers of a free republic and faithful to their obligations, and who, man for man, are unsurpassed in intelligence, valor, and soldierly devotion—such men as in 1898 won the admiration of all military critics.

Lieutenant-Colonel Chamberlain (California) recommends that the pay of all noncommissioned officers of the line be increased. He suggests that \$50 per month would not be excessive for a first sergeant,



upon whom depends so much of the contentment, discipline, and efficiency of the company.

Major Smith (South Philippines) suggests that the Government would gain many old soldiers by reenlistment by allowing travel pay on the Pacific Ocean to soldiers discharged in the Philippines; and adds that the recruit costs the Government as much or more than the travel pay of the experienced and acclimated soldier would have amounted to. It is thought that a discharged soldier, who is entitled to transportation and subsistence in kind across the Pacific and who reenlists and remains in the islands, should, at least, receive an equivalent in commutation for the subsistence and transportation which he does not take advantage of by reason of such reenlistment and remaining in the islands. Should a premium be placed upon trained soldiers leaving the archipelago?

Discipline. Prompt obedience and fidelity to duty are the essentials to the attainment of a proper standard of discipline. To develop these are very high functions of officers and noncommissioned officers, whose obligations in these respects increase with their rank. It is a cardinal point that an order which can not be enforced should never be issued, but an order once issued must be carried out.

The discipline and field instruction of the Regular Army, in which lie its real strength and superiority over the auxiliary forces of the nation, have been unquestioned; yet, if we accept the opinions of some company commanders and statistics as to arrests and confinements as conclusive evidence, it does not seem to be unanimously accepted now as at all superior, if as good as formerly, in minor matters. For instance, of 56 commanders interrogated on the subject, 38 considered the discipline worse and 8 better than in 1897, while 10 considered it as good. The percentage of men never in confinement might illustrate the original quality and tractability of the men.

Colonel Garlington (Lakes) says:

The troops are now passing through the period following war, always a severe test to discipline, and at this particular time the difficulty is accentuated by the presence with troops of so many young officers of some active service, with rank superior to that now held, but untrained in many of the fundamental principles pertaining to the profession of arms. As a rule they appear to be imbued with the soldierly spirit and a desire to perfect themselves in the details of their chosen profession. Post commanders have the grave responsibility of organizing and conducting schools, based upon schemes of instruction that will afford the proper incentive and opportunity to this class of officers.

It is gratifying to note the following from Major Bolton (Second Separate Brigade, Philippine Islands):

The discipline of the men has been marvelously excellent, considering the very great scarcity of officers and the circumstances surrounding their quarters, where they necessarily have the run of the town.

Major Adams (Texas) remarks:

Instances have occurred in this department where enlisted men at recruiting stations have given considerable trouble, due to the fact that there were no means available for punishing them or restraining them for military offenses, and that there was no legal place of confinement or detention for fractious and insubordinate soldiers. It would seem that a United States marshal, if he is not now authorized, should receive instructions to hold in custody, with other Federal prisoners, soldiers

turned over to him by a commissioned officer of the Army for military offenses and violations of the Articles of War, until such time as they can be sent under proper guard to a military post.

**Desertions.** The average strength of enlisted men in the Department of the Columbia was reported as 2,148, with 193 desertions, for the twelve months preceding the various inspections; an average of 8.98 per cent of desertions.

The report of inspection of the Presidio of San Francisco, Cal., made during November, 1901, shows an average strength of garrison of 2,212, with 391 desertions during the preceding twelve months; an average of 17.6 per cent. This, however, includes 204 desertions from the casual and recruit camps located at the post, in which it is reported there were 8,961 different men during the year 1901, although the average strength of the detachments in these camps is included in the above average strength of garrison at 500. Subsequent investigations of the cause of desertions at this post show that fully two-thirds of the deserters were recruits.

For the fiscal year ended June 30, 1898, the general average of desertion in the Pacific District was 3.04 per cent, the number being 91 out of an average strength of 2,990.

The applicant for enlistment passes a satisfactory physical examination. The great difficulty in properly gauging the mental and moral qualities of an applicant for enlistment is fully appreciated, but would perhaps be known if men served in the same regiment who lived in the same region, as is the case generally in Germany. Promptly joining their permanent company when not in campaign, and more formality in publicly administering the military oath, called by the Romans the *sacramentum*, might have perceptible results in diminishing desertions.

A considerable number of the deserters in the Pacific States are supposed to have enlisted in the East with the intent of deserting after being taken to the coast by Government transportation. But slight effort to apprehend and punish a deserter or a careless disregard of the oath of enlistment—which, indeed, might be more impressively administered in presence of the whole command when recruits first march upon dress parade—may affect the percentage, for the least whim or inattention seems to affect it; and it might be well to give full pay only after that formality, for the Government loses heavily now by the clothing allowance.

In this connection the following extracts from reports mentioning the subject of desertions are worthy of consideration:

Maj. H. E. Tutherly, Eleventh Cavalry, acting inspector-general, Department of the Columbia, says:

There have been a large number of desertions for the number of troops in the Department. \* \* \* The percentages are larger in the States than in Alaska. I am unable to attribute the large number of desertions to any particular cause—it is certainly not mistreatment of men—and the largest number is from posts whose locations would lead to contentment. I am, however, of the opinion that the class of men enlisted does not compare favorably with those just before the Spanish war, when we had so few desertions. I would suggest as a remedy increased care in enlisting, more diligence in the pursuit of deserters, and severer punishments. I would also make garrisons more homelike for men by increasing and improving the facilities for amusement. Good post-exchange buildings, amusement halls, gymnasiums, and libraries should be provided by the Government, and these places should be fitted up as such places are in civil life

Maj. William E. Birkhimer, Artillery Corps, Presidio of San Francisco, Cal., in a report of an investigation of the causes of excessive desertions at that post, presents the following views:

It is believed, and this belief is in conformity with the ideas of all officers and level-headed enlisted men examined during the investigation, that one word covers the matter of desertions here inquired into, and that is "recruit."

It is true that some old soldiers desert, but they are so few that the integrity and entire justness of this conclusion is not affected.

Many recruits are held to their obligations while in casual camp by the fact that several months' pay is due, \* \* \* and many of them desert immediately after the first pay day subsequent to joining a regular company or battery. They have their pockets full of money; their clothing is all drawn for some time; if they stay in, a settlement of clothing must be made, and they see that this is their flush time. If they desert now, it will be to get more out of the Government than if they stay for some future pay day. The temptation is too strong, and they yield and desert.

The Government is responsible for the light manner in which these men view the obligations of their oath—first, by the statute of limitations for punishing desertions; second, cutting down the time of service from five to three years. As a result \* \* \* they do not fear punishment for desertion. The sympathy of the community is with them, and they regard apprehension as so remote and uncertain that they are not deterred through fear of it.

Col. George H. Burton, inspector-general Department of Cuba, says in regard to desertions:

The average strength of the command was 3,184; number of desertions, 68. The most desertions from any one organization numbered 14, from Troop E, Eighth Cavalry, stationed at Santiago, while there were 10 organizations which had no desertions. The percentage of desertions from the entire command was 2.1 per cent.

Col. J. P. Sanger, inspector-general Division of the Philippines, mentions the subject of desertions as follows:

Two hundred and ninety-two desertions have been reported, which is a small fraction over 1 per cent of the number of troops inspected. This is much less than one per company. Were the number of desertions much larger and serious breaches of discipline frequent, it should occasion no surprise, as many of the companies have been without a captain and a very large number have been commanded by inexperienced lieutenants. It may be confidently expected, however, that, with the return of the captains to their companies, the orders of the division commander recently issued will result in a marked improvement in discipline and all branches of instruction.

At a large number of posts in the United States the countersign did not appear to be used by sentinels. Guards, guardhouses, and prisoners. Guard duty did not seem to be excessive—both non-commissioned officers and privates marching on guard on an average of about once every eight days—although the soldier at Fort Logan H. Roots, Ark., with the minimum of three days between tours, was performing eight times as much guard duty as his comrade at Fort Terry, N. Y., where the maximum of twenty-five days between tours was reached. How different this is from the customary practice a dozen years ago affords a striking contrast, and may again impress the older officers with what changes have taken place.

The guardhouses were reported inadequate at 31 of the home posts, and this fact adds weight to the following suggestions:

Colonel Garlington (Lakes) says:

The presence of a large number of military prisoners, partly or wholly in uniform, about a garrison, always in evidence, and more or less in contact with young soldiers, is demoralizing upon them, and an unpleasing picture to residents at the posts and to visiting civilians.

It entails large guards, interferes with instruction without any material compensation. The system affords little or no opportunity to reform or reclaim the offender; reduces the punitive feature to a minimum, and reacts deleteriously as exemplary punishment. It is practically impossible under the system to enforce a sentence of

hard labor, and the labor performed is unsatisfactory and out of all proportion to the number employed. \* \* \*

The separation of young soldiers from men who have demonstrated their contempt for the obligation imposed upon them by their oaths of enlistment should be as complete as possible. \* \* \*

The best solution would seem to be the establishment of a military prison at some central location.

Major Irons (Colorado) says:

The present system of confining military convicts in post guardhouses is very demoralizing in many ways. \* \* \* In my opinion, the present system has never been satisfactory, and a return to the military prison at Fort Leavenworth, or elsewhere, should be given thorough consideration by higher authorities.

To those who grieve to believe that there might be some decadence in the service during the past lustrum there should be some encouragement in the evidence of rebound and improvement toward regaining the soldierly excellence established under General Grant and his successors.

The reports indicate improvement in the amount and character of the practical instruction had during the year as compared with the preceding one. The regulations and orders prescribing practical instruction have been more generally complied with, and minor tactics, practice marches, and military problems have not been so much neglected. Every attention should be given to these exercises and also to target practice, signaling, castrametation, fieldwork, scouting, and physical training. With the concentration of commands and the fuller garrisons, the time is opportune for a reawakening that will bring the Army up to that excellent state of efficiency attained before the Spanish war. That any man untrained in the use of arms and therefore hardly able to injure any enemy could be sent against a seasoned soldier might seem like killing the innocents. What percentage of our recruits are effective shots before entering a campaign or meeting the enemy in battle may have been reported at times in some commands, and, so far as they deserve, have received attention.

Major Reynolds (Dakota) says:

I believe more attention should be given to signaling and scouting. I would recommend that in each company and troop a certain squad be particularly instructed in these matters, especially scouting. Then, when a regiment takes the field, the combined squads make at once an efficient scouting force.

In the making of a soldier there are certain gymnastic exercises and their practical application which he should be required to learn as thoroughly as other drills. He should also be taught all that pertains to his part in making camp with the different kinds of tents. All this is contained in the little pamphlet called Military Athletics and Calisthenics, printed in 1897 at the Infantry and Cavalry School. We already have books on gymnastics and calisthenics, but they, it seems to me, are too elaborate and are only useful when time and inclination would suggest further schooling. We have no authorized system for making camp with the different tents in use. I recommend all this be incorporated in the drill regulations.

The reports show that the coast artillery had settled down to business during the year and instruction in this arm was very generally vigorously pursued; and seldom has it been more needed than during the recent sudden increase.

In the Philippines practical instruction has been limited to drills and target practice, although the latter has not been possible at all stations.

Instruction must necessarily be limited where coast artillery has no fortification nor guns: and other troops have often no suitable drill ground, nor target range, nor sufficiently numerous and experienced officers present to properly instruct them. The troops inspected by

me at Honolulu, Pekin, and in the Philippines were probably as well instructed as could be expected with the facilities available and under the then existing conditions.

This most important feature of a soldier's education has been more or less neglected, but the increase in the size of garrisons has so stimulated interest in the matter that where practice had not been had at the time of inspection arrangements were being made to have it before the expiration of the target year.

At several posts there is no suitable range nor place on the reservation for one; and the country around others has become so settled up as to make a safe range out of the question. Where proper facilities for practice can not be had at the post, troops should be moved during the season to posts having good ranges, or sent to some place to camp where a range can be constructed. The inspection reports received from the Philippines show that target practice has been more generally held there during the year than heretofore. The need of target ranges, or better ones than those used there, is frequently mentioned.

The following little tabulation showing the results of the "shoots" in the Middle District in 1897 and in the Department of the Missouri in 1902, may be worthy of consideration, as showing how the Army has retrograded in this important matter:

	Total men.	Sharpshooters.	Marks-men.	First class.	Second class.	Third class.	Total classified.
Middle District, 1897 .....	3,036	60	125	471	673	1,204	2,533
Department of Missouri, 1902...	3,464	43	48	182	377	1,250	1,909

Notwithstanding the fact that there were 428 more men in the Department of the Missouri in 1902 than in the Middle District in 1897, still the results achieved in the Middle District were much greater, both relatively and absolutely, except in the third class, and even in that item the percentage was greater in the Middle District.

The percentages in the different classes, as between the two departments (with a nearly equal number of men), were as follows:

	Sharpshooters.	Marks-men.	First class.	Second class.	Third class.	Total classified.
Middle district, 1897 .....	2	4.1	15.5	22.1	39.6	83
Department of Missouri, 1902 .....	1.3	1.3	5.2	10.9	36.7	56

How great has been the reawakening on the subject of musketry was illustrated at the Sheridan "army shoot," held, under the personal supervision of that excellent soldier, Major-General Bates, this year.

The companies of coast artillery are reported to have had target practice during the year, as far as practicable.

The reports show that but few batteries of field artillery had had target practice up to the date of inspection. Several batteries had but recently been organized, and some had not received their equipment. At the mere mention of the fact that there were only 14 batteries of field artillery in January, 1901, and there are 28 now, the necessity for target practice becomes apparent. The problem of finding suitable ranges is no doubt a very difficult one, but it demands solution if our

light artillery is to receive the instruction necessary to its efficiency.

With the increased garrisons and the large number of new men in the ranks, a systematic course of physical-training should be inaugurated wherever practicable. Exercises under this head are either neglected altogether or limited to calisthenics. The need of a properly equipped gymnasium at every permanent military post, which has been mentioned in my annual reports for several years, is greatly felt. The reports indicate that some posts have no post gymnasium and but very few a properly equipped one. Some tentative efforts have from time to time been made in this direction, but in the Departments of California, Colorado, Columbia, Dakota, Lakes, Missouri, and Texas, out of 66 posts, only 13 were reported to be provided with a post gymnasium, and only 7 with a properly equipped one. The inspection reports received from the Department of the East do not furnish information on this subject, and the annual summary has not yet been received from that department. It is hoped that the appropriation of \$500,000, made under the head of post exchanges for the fiscal year 1903, which is available, among other things, for the construction and equipment of gymnasiums, will be supplemented by similar annual appropriations until the permanent posts are properly equipped with the necessary gymnastic facilities for the proper training of the soldier.

Colonel Garlington (Lakes) says:

The troops are largely recruits or men who, on account of the necessities of the service, have received little preliminary training in the school of the soldier, and, consequently, show the need of setting up. None of the posts have properly equipped gymnasiums. In the training of the soldier such instruction is of prime importance, and facilities should be provided.

The excellent condition of the best commands of the infantry, cavalry, artillery, engineers, and staff corps, indicates that the old leaven is ready to work in all, and the old ability and faithfulness abide and could be fully relied upon to make things fit.

How much the interest and training of soldiers and their horses are improved by such a military convenience as a riding hall many civilians will now bear witness who have seen what they lead to at West Point, Fort Myer, and the Kansas or other posts. But the need of them and of well-equipped gymnasiums has hardly been adequately met. That horse and rider should appear as one, and the soldier should wield his weapons well, all admit and it was fairly attained in 1897; though at times before that it might have seemed impossible to some.

Officers' schools. Officers' schools, which succeeded the officers' lyceums pursuant to General Orders, No. 155, Headquarters of the Army, 1901, were conducted at about 63 per cent of the garrisoned posts, exclusive of the Philippines. At several posts, owing mainly to lack of officers, instruction was suspended by authority of the department commander.

Noncommissioned officers' schools. The reports indicate that a school for noncommissioned officers was conducted in each organization. As a rule the instruction given in these schools is rather limited and it is thought that it might well be supplemented, or rather raised to a higher plane, by progressive courses to be prescribed by the War Department and conducted by battalion or post methods and supervision. Our present system of battle tactics imposes a higher order of duty upon the noncommissioned officer than

formerly devolved upon him, and the situation would seem to demand an advanced, uniform system of theoretical instruction.

Major Irons (Colorado) says:

The schools for noncommissioned officers should be made more effective, as many of them have had little experience and are not thoroughly familiar with their duties as guides, etc.

**Messing.** The company mess system obtains at all posts except thirteen, and is reported, without exception, to be very satisfactory—the food being sufficient in quantity and variety, and properly prepared and served. The general messes were a result of the struggle to get enough food for the soldiers before fresh vegetables were added to the ration or the post exchange was started, and, although apparently well managed, are not popular; and, as suggested in my former reports, this system might, it is thought, be wisely limited to recruit rendezvous for recruits only. Suitable company kitchens should be provided where needed, and the general mess halls converted into well-equipped gymnasiums or used for other necessary purposes. The inspection reports show that the company mess system was returned to during the past year at Forts Leavenworth and Riley, Kans., with very satisfactory results. The situation at Fort McPherson, Ga., where the mess is well managed and both steam and range cooking are employed, as depicted by Captain Hoyle, assistant to inspector-general, Department of the East, in the following extract, is typical of the general feeling towards the consolidated mess:

The general mess system obtains at the post and is very unsatisfactory to men and officers, because all concerned prefer the company mess. The mess building was constructed for the purpose, and is very complete and excellent. The food furnished is of good quality, of considerable variety, and well cooked and served. Meals are served promptly. Both steam and range cooking are employed.

In an indorsement on this extract, dated June 4, 1902, Major-General Brooke remarked:

I do not believe in general messes; they are unsatisfactory, impracticable in camp and field. I think they should be replaced by company messes.

The following is a list of the posts at which general messes were in operation at time of annual inspection:

Fort Crook, Nebr.	Fort Sam Houston, Tex.
Jefferson Barracks, Mo.	Fort Bliss, Tex.
San Diego Barracks, Cal.	Madison Barracks, N. Y.
Columbus Barracks, Ohio.	Fort McPherson, Ga.
Fort Thomas, Ky.	Fort Slocum, N. Y.
Fort Sheridan, Ill.	Fort Wood, N. Y.
Plattsburg Barracks, N. Y.	

**Bread and bakers.** The bread baked in the post bakeries has maintained its usual reputation for excellence during the year. The reports indicate that at only four posts in the United States was the quality of the bread below good.

During my Philippine tour it was noted that the soft bread furnished the troops at Cebu was not up to the standard—bakers probably in need of instruction. Some quite bad bread was found in one company at Cuartel de Espana, Manila. At San Fernando de Union the bread was poor and it was said some of the flour was bad—the baker was reported to be good. The difference between the quality of bread served to the men in the Philippines seemed greater than usual in America, and resort to native bakers was a make-shift.

In some commands considerable difficulty has been experienced in getting competent bakers, the hire of civilians having been resorted to in some cases. Special provision would seem to be necessary to insure at least a few men in each organization who can make good bread.

It is suggested that the post bakery be utilized as a school of instruction for bakers by the arbitrary detail of one man from each organization for, say, a four months' tour of duty in the bake shop for the purpose of instruction. This class should be additional to the chief and assistant bakers, and need not be present at the bakery except at such hours as may be necessary for instruction. Under careful supervision it is thought that this would in time give a sufficient number of bakers to meet the needs of commands during the present transition period rather than have any command suffer, even for a season.

The ovens won universal praise. The general tone not only of satisfaction, but of gratification, at the excellent, liberal, and abundant supplies as purchased is exceedingly gratifying. That generally every effort was enthusiastically made by the Subsistence Department to have the troops well provided everywhere during this year is heartily recognized by all. The part given by law to the Inspector-General's Department to aid in this has been earnestly performed. The fresh-vegetable ration or special provision for the Tropics, or Alaska, or for malarial regions may, like the Sunday-rest order or other considerate innovation, excite some opposition from those who are not at the farthest front; but however some may dread what the future has in store, few would now desire to return to the days of three nights or less in bed, and constant bacon and beans, and interminable Sunday inspections and drill, and only the same weight of clothing for winter or summer, arctic or tropic service, and the plank bed in tiers covered with straw-filled tick, which hardened old soldiers.

Post gardens. Post gardens were cultivated, with generally fair success, during the garden season preceding the last annual inspection at about one-half the posts in the United States, and two in Alaska. There were no gardens reported in Cuba or Porto Rico. It does not appear from the reports that post gardens are cultivated in the Philippines, although some excellent company gardens have been reported in which almost all vegetables grown in the States were raised. As the benefits derived from these gardens, when known, may have a tendency to stimulate an interest in the cultivation of others wherever this can be done with reasonable prospect of success, the following table, showing the approximate value of garden products for seven posts for the garden season preceding the last annual inspection, may prove interesting:

*Approximate value of garden products for season preceding annual inspection, fiscal year 1901-2.*

Fort Washakie, Wyo .....	\$675. 00
Fort Riley, Kans .....	992. 00
Fort Robinson, Nebr.....	658. 00
Fort Niobrara, Nebr.....	500. 00
Fort Adams, R. I.....	700. 00
Fort Greble, R. I.....	600. 00
Fort Slocum, N. Y.....	626. 40

Total for seven posts .....

4,751. 40



The reports show that post schools as contemplated by Revised Statutes, 1321, were conducted at 66 posts (exclusive of the Philippines), which had an average enlisted strength of 16,990 and an average daily school attendance during the term of 1,530, or 9 per cent. Fair to good progress was reported, except at two posts, at which the operations were stated to be unsatisfactory. The school accommodations were reported insufficient at 12 of the posts at which school was held. As compared with 1897, the percentage of attendance is about the same, the figures for that year for 75 posts being: "Enlisted men at posts, 22,422; attendance, 2,109; percentage, 9.4."

The posts in the United States are generally provided with a library and reading room, but at about 30 per cent of them the accommodations in this respect were reported unsuitable or unsatisfactory. At 23 posts the supply of newspapers and periodicals furnished by the Quartermaster's Department was reported to be insufficient.

The need of post libraries is greatly felt in the Philippines, and unsparing efforts should be made to establish reading rooms, at least at every station of any permanence there. They would conduce much to the contentment of the soldier, who is deprived of practically all the advantages for recreation and amusement enjoyed at the home posts. But the delays and uncertainties of the mail should be carefully taken into account there. A letter sent to every post on the islands, severally, had reached none of those on Zambales coast months afterwards, if ever, and the desired information had to be subsequently telegraphed for.

Of 123 posts in the United States, Alaska, Porto Rico, Cuba, and Hawaii, 87, or 71 per cent, had these institutions in operation at time of annual inspection. Thirty-six were reported as having no exchange—a very marked difference as compared with 1896, when an exchange was reported at every post except 7. The accommodations and equipment of the exchanges in operation were reported to be suitable or fairly so, except at 14 posts. With few exceptions their operations were stated to be satisfactory. Six were reported to be not well patronized since the sale of beer was prohibited.

The following table shows the average profits per cent realized from sales at post exchanges for 1897 and 1902, as shown by the reports:

Year.	Average profits.			
	Beer.	Cigars.	Etables.	All other articles.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1897 .....	96	32	13	17
1902 .....	.....	31	25	22
Increase .....	.....	.....	12	5

The amount of exchange funds distributed to organizations for 30 posts for years 1898 and 1902 is shown in the following table:

Year.	Average strength.	Exchange funds distributed.		
		Amount.	Average per man.	Decrease per man.
1898 .....	10, 978	\$91, 962. 03	\$8. 37	<i>Per cent.</i>
1902 .....	8, 642	30, 664. 62	3. 54	58

The foregoing figures would indicate that, as compared with years before the sale of beer was prohibited, the exchange is not as universal, that the soldier has to pay more for his eatables and all other articles except cigars, and that the dividends which go to the improvement of his mess have fallen 58 per cent.

Barring some fifteen small company stores where a little confectionery, a few smokers' articles, and soda water are sold, there has not been, so far as reported this year, a single post exchange in the Philippines. During my recent tour there the fatal effect upon the health and efficiency of the soldier produced by drinking native liquors, such as vino, was frequently called to my attention. But there seems to be some lack of unanimity among the inspectors concerning beer in the canteens. Colonel Sanger, inspector-general of the division, states that the post exchange can not be maintained there without the sale of beer, and produces statistics collected from 342 companies as to the drinking habits of the men before enlistment and now, from which he concludes that there is no fear that the sale of beer would initiate or induce habits of intemperance. He recommends that the prohibition law of February 2, 1901, be repealed. If the least use of alcohol is a sin, the subject is not open to discussion: but if judgment is to be founded upon facts regarding a question of policy and health or comfort, his views and presentation of facts may attract some attention in due time.

His statistical table, in condensed shape, is as follows:

Percentages of enlisted men in 342 companies who used vinous, malt, or spirituous liquors at time of enlistment, and of those who use such moderately at present.			Percentages of enlisted men in 342 companies who drink to excess habitually, and of those who are total abstainers.		
Percentage of men.	Number of companies.		Percentage of men.	Number of companies.	
	Drank at time of enlistment.	Drink moderately at present.		Drink to excess habitually.	Total abstainers.
100.....	60	38	10 to 35 .....	71	72
90 to 100 .....	130	129	1 to 10 .....	145	178
80 to 90 .....	58	88	None .....	112	83
70 to 80 .....	26	43	No data.....	14	14
60 to 70 .....	20	19			
20 to 60 .....	12	11			
No data.....	46	14			

Extracts from the annual reports of several inspectors-general on this subject are given in the appendix, to which attention is invited. Their remarks, except those of Colonel Sanger, to which reference has already been made, may be briefly summarized as follows:

Colonel Burton (Cuba):

The post exchanges have been a great comfort to the troops, notwithstanding the change wrought by recent legislation with the sale of beer.

**Major Tutherly (Columbia):**

Favors the prohibition law, and believes that with business energy the exchange will serve a better purpose than when the sale of beer was authorized.

**Major Irons (Colorado):**

Recommends a revision of the Post Exchange Regulations.

**Major Reynolds (Dakota):**

The exchanges are fulfilling their purpose and making money. Prohibition of sale of beer has not materially affected discipline.

**Captain Erwin (Missouri):**

At all posts in the department both officers and men desire that beer be again sold in the post exchange.

**Major West (Fifth Separate Brigade, Philippine Islands):**

Has no means of judging effect of prohibition law. There is some drinking of vile native liquors, which produce insanity and dysentery. Suggests a short term of service in the islands as the most effective way to stop these habits.

**Major Eastman (Fourth Separate Brigade, Philippine Islands):**

When the abolition of the canteen has driven the soldier to the outside saloon and dive and to the use of native drinks—fatal to his efficiency—he is soon dead or dishonorably discharged.

Properly conducted laundries would be valuable acquisitions to military posts, and the following extracts seem to suggest their feasibility:

Post laundries.

**Colonel Burton (Cuba) says:**

At Columbia Barracks they have an effective and efficient steam laundry, doing excellent work for officers and men at reasonable cost. The satisfactory service of a steam laundry, as exemplified at Columbia Barracks, causes an increased desire on the part of those of experience that such machines may be supplied to all posts of any considerable magnitude and permanency.

**Major Irons (Colorado) says:**

I am in favor of a post laundry as a Government institution in which men can have their washing done at a moderate cost. A laundry of this kind is successfully managed at the general hospital at Fort Bayard, N. Mex. A laundry might have attached to it an establishment for mending bed linen, etc. While commanding a company, my experience was that enlisted men invariably turned in soiled bedclothing when they were discharged, which could not be reissued until laundered at the expense of the company fund. Many articles were rendered unserviceable by being torn, which, if they had been mended in time, would have saved the Government considerable expense.

**ENGINEERS.**

The companies composing the Second Battalion of Engineers, stationed in the Philippines, have been actively engaged during the year in the construction of trails, roads, bridges, works of reconnaissance, and map-making, and have rendered such valuable and efficient service as to win that general commendation which is usual to this corps d'élite. The Third Battalion, stationed at Washington Barracks, D. C., is under a thorough course of practical and theoretical instruction, for officers and enlisted men, approved by the Chief of Engineers. The First Battalion returned from the Philippines in December, 1901, and is stationed at Fort Leavenworth, Kans. This battalion is mentioned in a highly commendatory manner by the commanding officer of the troops

on the return voyage (Maj. J. E. Macklin, Eleventh Infantry), who states that the bearing, behavior, and discipline of the men were such as not only reflected great credit on themselves but also on their officers.

#### COAST DEFENSES.

The great importance of having our seacoast fortifications properly equipped and ready for the immediate and most effective operation of their armament is well understood, and scores or hundreds of minor or some special deficiencies in this regard are regularly brought to the attention of the several bureaus mentioned in Article XLI, Army Regulations, having touch with the subject—the Ordnance, Engineer, Quartermaster, and Signal departments, and Chief of Artillery—by extracts from the inspection reports, which may best be omitted from an annual. This important work, under the new appropriations, is sure to be—indeed, has already been—taken up in the order of most necessity, for all must work together for the common object—the perfection of the national defenses. Such a test as the late assailing of the land defenses by a naval force assures active attention and perfection of every essential detail and element of defense in that region, even though the results or remedies may not be immediately made known to the inspector, as the action of one is said to be based upon the recommendations of another chief of bureau. Most of the imperfections seem to depend upon lack of funds.

Honolulu. The following is an extract from my report of inspection of the post of Camp McKinley, Hawaii, dated September 3, 1901, touching upon the defensive points there:

The situation here would seem to be of especial importance as a strategic point, having influence over a wide area about it over several lines of commerce; and this would be greatly increased on the completion of the Isthmus canal, and the Pacific should be in absolute condition of communication and defense, from every international point of view, before the great work is completed. In relation to this situation, the importance of Pearl Harbor deserves to be particularly magnified. If there is another such landlocked harbor more important in Polynesia I do not recall it. The extended water front obtained by the shape of the harbor, extending into the land like the fingers of one's hand, would seem to make it suitable for an army site of the first magnitude. The difficulties in opening a way through the bar are well within the powers of any civilized nation.

I venture to submit, therefore, that the military should not be in any respect behind the naval branch of the Government in inviting attention to this important matter, which practically extends the influence of this country 2,000 miles seaward beyond its former borders, and gives a breathing place between the Philippines and our coast ports that may be of the utmost consequence.

The defensive points for locating artillery seem to be naturally determined, but are not brought forward now, as they pertain to another bureau of the War Department; but the first step in whatever is the settled policy of the Department can not be too promptly taken, so as to show in practical execution the interest of the Government in the security of its possession and the needs of these people.

#### RECRUITING.

On lighter matters the general inspectors have sometimes been compared with floorwalkers in a department store or the jingle bell in a street car, which has a connection in aiding the work around it, which would be unwise to do without, as no one can foresee just when they will be aroused to fullest activity where needed. As inspection should be at some time applied to every matter, all are kept constantly on the alert, and many inspections are grouped into a single tour.

In connection with the posts of Jefferson Barracks, Mo., Columbus Barracks, Ohio, Fort Slocum, N. Y., and Fort Sheridan, Ill., the recruiting rendezvous located at these military posts were also inspected.

During this fiscal year 81 recruiting stations have been inspected. These inspections have covered a wide range of territory—from the Atlantic to the Pacific and from the Gulf to the Great Lakes. The reports indicate that there were on duty at these stations 64 officers, consisting of 1 colonel, 3 lieutenant-colonels, 7 majors, 31 captains, and 7 lieutenants of infantry; 2 majors and 8 captains of cavalry; 2 captains and 2 lieutenants of artillery, and 1 lieutenant of the Signal Corps, or more than enough officers for a regiment. Can not this constant deflection be recognized and provided for by law, so they will be habitually replaced in their permanent organization, and the companies will not be made to suffer by this staff work?

The work of some recruiting officers has been necessarily arduous, as substations have been maintained, frequently for one or two days only, by noncommissioned officers, although directly under the supervision of the recruiting officer in charge. The reports state that the officers in charge have been zealous and energetic in the performance of their duties, and that the recruiting details are, in nearly every instance, competent and satisfactory. Each detail contains from 1 to 11 enlisted men, and the average for each station is less than 4, making altogether a considerable battalion. The location of the following-named stations is reported undesirable for the reasons mentioned: Station at No. 57 East One hundred and twenty-fifth street, New York, "Too high rental; cheaper location would do as well;" New Orleans, La., "Not desirable;" Wheeling, W. Va., "Not considered desirable;" Worcester, Mass., "Back room; no opportunity to conspicuously display posters or flag." All other stations are reported well and conveniently located. The total number of rooms occupied is 389. The maximum is reached at New Orleans, La., where 19 rooms are reported, while several stations occupy the minimum, one. The monthly rental paid for these recruiting quarters is \$3,781.49. The largest rental, \$150 per month, is paid for 13 rooms at a station in New York City. Bedding and bunks are generally reported adequate and in good condition. Most every station is equipped with good bathing facilities, though in a few cases the recruiting detail is compelled to share bathing facilities with other occupants of the building.

Meals are habitually furnished under contract at various prices, ranging from 39 cents to \$1.44 per day, though the usual price per meal is 25 cents, and the average price per meal for all stations is about 23 cents. With but one exception the food is reported as of good quality and sufficient. A record of messing is kept.

The reports show that there were 89,984 applications for enlistment, and that of this number 25,299, or 28+ per cent, were accepted, and 64,681, or 71+ per cent, were rejected. The principal causes of rejection were minority, under size, under weight, appearance of intemperance, married, impaired vision, varicocele, varicose veins, imperfect knowledge of English, and general unfitness.

As to productiveness, the stations seemed to vary regardless of their geographical location. At South Bend, Ind., and Los Angeles, Cal., the reports show the largest percentage of applicants accepted, 80 and 76 per cent, respectively, while in the number of applicants accepted

Louisville, Ky., leads with 2,024, and Knoxville, Tenn., is second with 1,398. Of the 25,299 accepted recruits, 21,919, or 86+ per cent, were native, and 3,380, or 13+ per cent, were foreign born, which gives a ratio of 6.6 native to 1 foreign born, and indicates a decrease of foreign-born recruits, as compared with last year, when the ratio was 5.6 to 1. The largest number of foreign-born recruits from one country, 616, are from Germany, while Ireland furnished 607, England 332, Canada 286, Russia 120, Norway 66, Scotland 47, Switzerland 45, Italy 40, France 31, and all other nationalities 1,190.

Sixty-six reports state the ages of accepted recruits as follows: Minors 3,261; between 21 and 30, 13,175; between 30 and 40, 2,050; over 40, 63. Various occupations are represented by accepted recruits, the principal ones being as follows: Laborers, farmers, soldiers, clerks, machinists, printers, carpenters, cooks, shoemakers, barbers, bakers, tailors, and engineers. A great variety fits our military situation.

#### VIOLATIONS OF A. R. 852.

Attention is invited to the following extract from the annual report of Col. J. P. Sanger, inspector-general, Division of the Philippines, dated June 30, 1902, on this subject:

My attention has been specially invited to the repeated violations by officers of the supply departments of paragraph 852, A. R., in giving orders and instructions direct to their subordinates, reporting to or serving under officers commanding troops. On this subject Major Bolton remarks as follows:

"There are too many orders issued by the heads of staff departments in their names. \* \* \* This matter is more far-reaching than appears on the surface. Surgeons receive orders from their chiefs, affecting their personal movements or to transfer sick men out of a command, which do not pass through the commanding officer. Quartermasters and commissaries order stores from one point to another without notifying anyone except their agents. It seems to me that such practices are subversive of all military calculations, and that it is absurd to expect commanding officers to be responsible where such conditions obtain. The line, and not the staff officer is the proper party to give orders to his subordinates acting as staff officers for the disposition of men, animals, and supplies, when such disposition affects the command."

These irregularities have been the subject of comment before by commanding officers and inspectors. There is little doubt but that a more exact compliance with paragraph 852, Army Regulations, on the part of all staff officers would result in much benefit to the general administration of the division.

#### THE SUPPLY DEPARTMENTS, ETC.

The purchases have been, if anything, overabundant, and generally the troops have been well supplied; and the exceptional good health of the men, especially those engaged in the most arduous duties in the Philippines, seems in a great measure due to this as well as to the careful attention that has been given to sanitation, and indicates a greater healthfulness in that region than had been anticipated.

The supply of fresh meat to remote stations; better means of landing, and of both land and water transportation between posts and depots, especially in the southern islands; quartering of troops; Asiatic cholera; tropical and other diseases of men and animals; and excessive supplies arising from concentration and withdrawal of troops; and the inherent difficulties of the terrain and population, are among the perplexing problems that have confronted the staff departments in the Philippines during the year. As distinguishing features of this tropical existence the destruction by the elements equaled both the poisons

of the jungle and the quagmires or roughness of the roads, or the difficulties of the surf-beaten shores, and the cruel treacheries of a contest against a blood-pact secret society. Who appreciates the environment?

In addition to the usual inspections of the affairs of the supply departments made at the various posts and stations, 78 general depots, arsenals, armories, and general hospitals were inspected under army regulation 968. There were at these establishments a total military personnel of 158 officers, 1,173 enlisted men, and 98 female nurses. The number of civilian employees (including 1,260 Filipinos and other Asiatics) is 8,355, and their monthly pay \$408,202.03, an average of \$48.85 each per month. The rent of the buildings occupied for depot purposes is given as \$19,466.12 per month.

Every bureau is doing its best to promote economy and efficiency, and every locality seems working fairly in the same spirit. The irregularities reported were few. The reports show many improvements during the year, such as saving in rent of buildings, reduction in number of employees, better shipping methods, under which the loss of stores in transit has been reduced to almost nil, the exercise of greater care and vigilance in preventing deterioration of supplies in stock. But the conditions in this respect have been rather unfavorable during the year in some instances on account of large surpluses and overstocked storehouses, resulting from concentration of commands and discontinuance of stations and subdepots or originally generous purchases. The chaos and strain of the early period of the Philippine occupation, when stores were drawn in overwhelming abundance and rather disordered mass, have been replaced by an effort to bring tall tiers of boxes of supplies in orderly arrangement under roofage; and instead of everything moving as an exigency or almost at the whim of some individual, regularity has appeared, so that everyone understands and adjusts himself to what it must be evident to all is intended to be accomplished.

The question of good wharves and landing places at the Philippine ports is an important one and so directly affects the supply depots there, that some reference to the situation may not be out of place here. During my tour south from Manila the need of wharves at the landing places was apparent, the transport being unable to tie up, but was compelled to anchor from 5 fathoms to 5 miles away. In various places the native canoe, called *banco* or *barringay*, transferred the passengers or freight ashore, and *lorchas* or *cascoes* were used when the quantities were large. As the old "prairie schooner," or army wagon, was replaced by steam cars, so the conditions there await the conveniences of accessible wharves and the most effective system of transportation, both by steam and electricity. In the meantime, the shipment of stores on commercial boats might in some instances prove advantageous to the Government, though uncomfortable or less considerate for the men. But tornadoes and earthquakes may set ordinary constructions at defiance, and give additional excuse for resorting to cheap and flimsy wharves as easy to replace as to destroy. The average amount per month paid for landing or unloading supplies was reported to be \$380 at Cebu, \$298.80 at Iloilo, and \$300 at Calamba, while at Tacloban, Leyte, the amount paid for loading and unloading vessels and hire of vessels to unload transports from December 9, 1901, to February 28, 1902, was reported to be \$4,990.45. Further, natives hired for discharging cargoes can not be relied on to meet emergencies where saving can be effected by prompt service. At Zamboanga, the whole force stopped at 4 p. m.

while transports were in the harbor, at a net expense of \$150 a day or more. In this connection, Maj. F. F. Eastman, inspector-general, Fourth Separate Brigade, Philippine Islands, remarks:

I have witnessed considerable unloading of stores at the different ports in the brigade, and have observed a great deal of useless waste of time, though probably unavoidable under the then existing circumstances. The Government has no docks for its transports and is obliged to depend on using private wharves or on hiring lorchas or boats and stevedores to unload at a distance from the shore. At most ports in this brigade such means are uncertain and costly, and after careful thought and observation, I am fully convinced that it would be much more economical for the Government to ship stores on commercial boats, unless each transport be supplied with at least two good-sized flatboats and provided with a crew of stevedores to go from port to port to handle the cargoes. The price paid at Sorsogon and Legaspi to unload a single cargo would often pay stevedores a months' pay each and furnish food for them too. Then the quartermaster or the quartermaster's agent should be charged with landing cargoes. By such method much time and money would be saved, and much destruction and loss of property, due to rough and careless handling, would be avoided.

A system that will insure the prompt payment of accounts, especially for personal services, would, it is thought, remove hesitation on the part of some classes of citizens in the Philippines about dealing with the United States. The native laundry women all over the islands were having checks issued to them for laundry work for the Medical Department, though they actually knew nothing of business, and some means must be found in each locality to secure the cash payment of such checks. Delays in payment of accounts are frequent and are not understood by the natives. For instance: in the papers pertaining to the disbursements at the medical supply depot at Manila for January, 1902, occurs a voucher incurred in April, 1901, due to Luis Paguntalan, at Tubigon, Bohol Island, for laundry services, amounting to \$2.50. That, under the existing methods, something similar might formerly occur in the Quartermaster's or some of the other departments it was said might be illustrated by the delay arising when a bill of lading of considerable magnitude is not accomplished on account of a rather insignificant shortage in a single item.

Native laborers employed in the Philippines at the depots, etc., are usually paid every week, the amounts being entered on the monthly pay rolls. Some are unable to sign intelligently, such as the Chinese, and their names or marks are required to be witnessed. The signing of pay rolls by mark by large bodies of transient laborers is almost impracticable and becomes quite an important question in the payment of laborers among the Asiatics.

The problem of how to best dispose of the large accumulations (present and prospective) of property at the Manila and other depots, may be a perplexing one, but it will no doubt be solved to the best interests of the Government.

#### QUARTERMASTER'S DEPARTMENT.

It is clearly evident that the heft of the hardest work of the year has fallen upon this department, and equally so how excellently it has done its work, and how generous and painstaking and successful in all its supplies, especially under the novel circumstances attending foreign service. We should remember, and others will doubtless note, what officers actually did the work first of all at the farthest front, where the work was without regard to hours and men's lives and utmost toil were hanging like spiders on the little threads of carabao carts or cascós swaying slowly forward through miasmatic nights



and blistering days. To unload huge ocean steamers with those gaunt little natives off an inhospitable coast, hurrying through all the twenty-four hours without any of the ordinary conveniences, and every moment a risk and every day a fatality, placed a strain on men at the very beginning which followed throughout the endless chain, even to where the impressed human bearers replaced the sore-backed, leg-wearied pack mule in keeping precious supplies up where the greatest pressure was to advance—always advance. This interminable strain and effort could be witnessed even on a duty so civil as the cable ship *Burnside*, which did such excellent work. Its quartermaster is commissioned in the Signal Corps—and many others doing quartermaster duty on land or water hold commissions in the several other branches of the service.

Outside of the epidemics and the exigencies of the <sup>Means of transportation.</sup> service, the public animals of the Quartermaster's Department were reported to be in good or serviceable condition and invariably well cared for at the various posts. The wheel transportation was, with few exceptions, reported to be in good condition and well cared for, although some instances of lack of proper shelter were noted. At 12 posts the means of transportation were reported to be inadequate.

Most of the military stations in the Philippines are located on the seacoast, and a large amount of wagon transportation is not needed. The best wagon for use there is the escort wagon, with wide tires. Pack animals and good steamers of light draft are indispensable. The physical features of the archipelago and the scattered condition of the troops have unquestionably occasioned extraordinary demands upon the Quartermaster's Department; and as was to be reasonably expected the great needs of the service there were fully understood and as fully provided for. Few who have not been there can appreciate how much has been accomplished. More suitable and more numerous boats, with better facilities for carrying men with comfort to the place needed, and for carrying refrigerated beef and fresh vegetables from depot to post and up rivers, and for shoal water and landings, were constantly sought and badly needed. To subject paymasters to weeks of travel in open barringays, poling or sculling upstream at the rate of 20 miles a day or less, as I saw Paymaster Wilkins up the Cagayan, or in small boats in the open sea, as inspectors have gone, would seem hardly fair, or seemly, or economical, or efficient. But it was accepted cheerfully as in the day's work and as the best that could then be done. The insular government has ordered the construction of a fleet of vessels suited to its purpose. The health and success of the Army and work in the face of the enemy depend upon continuing proper provision for the water transportation. Those who were at Santiago perhaps alone realize how hired transport is simply dickering in blood money. Whether by land or water, the measure of sacrifice of life finds one element in how thoroughly the transport is owned, organized, or impressed.

Lieut. Col. F. A. Smith, inspector-general, Department of South Philippines, who has had considerable experience with water transportation, especially in visiting the stations in the old Department of the Visayas, submits the following suggestions under date of July 10, 1902:

My observation and experience have firmly impressed me that what is and has been needed for the best interest of the service is a number of boats in the Government service of about 200 tons capacity, of good speed and of light draft, not to exceed 10

feet, fitted with cold storage or ice boxes, to carry only light freight and mail, and with a few passenger accommodations; these boats to leave Manila, Iloilo, or Cebu, and make a bimonthly trip to each of the stations in these islands, so that the arrival of the mail about twice each month could be a looked-for event, the delivery of fresh beef, vegetables, and ice could be assured, and that a system of intercommunication could be kept up, carrying officers and men to and from as occasion demands, or, in other words, in the nature of mail and express steamers. Those now owned or chartered by the Government being too large or of too deep draft to touch at stations other than the few principal ports of the islands, there being no harbors and many dangerous shoals and reefs in front of these stations, necessitates anchoring at long distances out, and the unloading is slow, tedious, expensive in the delay, and, owing to the lack of sufficient and proper kinds of boats for discharging, results in damage to stores of all kinds from getting wet. The distributing steamers from such points as Cebu, for example, are nothing more than small launches of 50 tons gross or 32 tons net, and not of sufficient carrying capacity to deliver supplies to more than two or three stations on each trip, and have to return to the point of departure to reload. Boats of this kind are not provided with discharging boats of sufficient size or strength to unload freight, and each station should be provided with small boats of the scow or flat-bottomed order, with high sides and strong-ribbed bottoms, the damage to the ordinary ship boats being very great when used for heavy freight. \* \* \* A small launch is very much needed at these headquarters for boarding purposes.

**Remounts.** The horses of mounted troops were generally satisfactory, although unfavorable criticisms were noted in the inspection reports of the Presidio, Cal., Fort Assiniboine, Mont., and Fort Logan, Colo., at which, respectively, 17, 12, and 18 remounts were condemned for viciousness during the year. The old discussion of this vexed subject when General Lawton and General Schwan were on duty in this department may be recalled with benefit. It is a comfort to recall the excellent solution of this subject prior to the Spanish war, as probably the cavalry was never better mounted nor the men and horses better trained than then. The need of a breeding station, to establish and maintain the type, was felt then and is not less needed now. The number of men formerly injured by vicious and intractable mounts may not be recorded nor universally interesting, but is of some individual importance.

Colonel Burton (Cuba) says:

The cavalry horses in Cuba have, during the year, been generally deteriorating. Many of them were war emergency purchases, upon which time, service, and a tropical sun brought out all the distinctive blemishes originally overlooked in hasty selection. A large number of them have been retained in service for purpose of instruction when entirely unfit for field service, only because of the anticipation of an early discontinuance of the department and their final disposition by sale. This culmination necessitated the elimination of 863 from the various regiments in the department at phenomenally high prices and a decided gain to the Government. \* \* \*

**Purchase of cavalry horses.** There is at present urgent demand on the part of the cavalry official personnel that one or more cavalry officers of known experience, taste, and adaptability for the purpose, be detailed to pass upon the merits of all horses intended for cavalry service. They claim that many horses have been issued to the cavalry the last few years which were utterly unable, from their conformation, to perform the duties required of them and were subsequently condemned and sold at a great loss to the Government, all of which could have been obviated had an officer of knowledge of the exacting requirements of the service selected them.

The expensive transportation to and fro of such valueless and objectionable horses can give cause for congratulation that they could not propagate their species. But the mules were remarkably fine.

**Diseases of horses and mules in the Philippines.** The large losses in public animals in the Philippines from "surra," glanders, and influenza have attracted the notice of the inspectors, and have received attention by the authorities there, with resultant abatement. The latest

information indicates that the treatment to be applied is better understood, although the mortality is still large, and further investigation of the subject, as recommended by Colonel Sanger, and the assistance of skilled veterinarians, as suggested by Major West, may be advisable. The excessive number of deaths of native men and animals by disease may possibly be as carefully recorded as ours. It is receiving attention.

Colonel Sanger (Division of the Philippines) says:

The losses in public animals have been much greater than in the table (horses condemned, 1,803; mules, 530; approximate cost, \$418,050), as many have died, the prevalent diseases being influenza, surra, and glanders. Of the 2,353 animals inspected and condemned, 1,491 were afflicted with surra, glanders, or influenza, and were killed; a large number have also died with these diseases that have not been acted on by inspectors. As early as December last, the excessive mortality among animals, said to result from glanders, was brought to the notice of the division commander, who, on December 12, convened a board of officers composed of Maj. Ramsey D. Potts, Artillery Corps, inspector-general, and Capt. Allen M. Smith, assistant surgeon, U. S. Army, which was directed to visit all places where surra and glanders prevailed among public animals and native ponies, and make a thorough inspection and investigation of these diseases and their causes; whether either had been mistaken for the other, what treatment had been applied, and the most practical and efficacious means of curing and preventing the spread of these diseases.

The board visited 10 different stations in the Camarines and Albay provinces, where the diseases called surra and glanders were very destructive, and examined and tested more than 700 animals, and while finding many cases of surra and influenza did not find a single case of glanders. In many instances surra and influenza coexisted. The board reported a remarkable similarity in the symptoms of surra, influenza, and glanders, especially in those of the two last mentioned; that from mere external signs it is very difficult to distinguish between surra and influenza, but where repeated blood tests show no parasites of the former disease, the case should be diagnosed and treated as influenza; that influenza resembles glanders far more than does surra, because of the offensive nasal discharge and the lymphangitis resembling farcy; that the discharge is, however, distinctly different from that of glanders, being more profuse, thicker, and gangrenous and lacking the oily appearance in that of glanders. \* \* \* In regard to surra, the board expressed the opinion that it has been greatly increased by insufficient and improper food. In cases where hay and oats were not furnished at all or furnished with great irregularity or an insufficient quantity for considerable periods, and where native grasses and grazing were relied on to sustain life, surra appeared for the first time.

The conclusions and recommendations of the board were published in Division circular No. 23, dated April 1, 1902, but the main points will bear repetition, as follows:

Native grasses, taken from the ground grazed over by native ponies or carabao, are liable to convey surra and glanders; all animals should be protected from heat and rain where practicable and fed partly or entirely on American forage according as they are in good or poor condition; native grass when fed should be soaked in brine; where surra or glanders prevail blood tests should be made at least once each month, and temperature taken frequently; prompt and complete isolation of all suspects and protection against flies and insects; all wounds and open sores to be covered; washing of animals with hose or in streams not to be permitted; stables and stalls to be thoroughly disinfected and kept clean; excreta and dead animals to be burned; contact with native stock to be prevented, and all forage to be protected against vermin. No conclusion in regard to treatment was reached by the board, although it was found that 10 c. c. Fowler's solution given intravenously in the neck, six injections, would usually destroy the parasites for the time being, to be followed by an equivalent dose, 10 c. c. dry arsenic in tonic powders, taken once or twice daily; moderate exercise recommended; also a liberal supply of medicines, disinfectants, etc., without regard to the supply table.

Up to this time there appears to have been some abatement in the death rate, the number of condemnations for the last six months thus far reported being a little more than one-half the number in the first six.

It would seem from this fact that the recommendations of the board are being observed, and that they counteract to some extent the causes of these diseases. Nevertheless, as there are no doubt a large number of inspection reports now en route to this office, and inasmuch as the number of deaths is still large, it is recommended that a further investigation of the subject be made.

Major West (Fifth Separate Brigade, Philippine Islands) says:

Three of the four troops of the Tenth Cavalry serving on this island have lost all their horses, principally from surra, since last September. These horses were sent from the corral at Manila, and apparently brought the disease here with them. A large number of horses and mules of the depot corral here have also died with the disease. No effective remedy for this disease has been found, so far as I have learned.

The necessity for skilled veterinarians in this country is evident.

Possibly surra is transmitted by a fly. Capt. J. J. Curry, assistant surgeon, Manila, P. I., in a report on this disease, dated December 23, 1901, says:

There is strong circumstantial evidence in favor of the transmission of the 'surra' parasite by some suctional insect. I have found a biting fly on infected animals filled with blood. These flies filled with blood have been found on dissection to contain large numbers of active trypanosonia. After two days the trypanosonia disappear from the fly's body.

The lack of proper stables for public animals has no doubt swelled the losses. This will be remedied gradually as the troops are concentrated, more permanent barracks erected, and proper shelters built.

There is no doubt but that American horses and mules thrive better on American hay and oats, and, although palay, rice straw, and native grasses are excellent substitutes in emergencies, they should be used only as emergency rations, and the full ration of American forage should be supplied when possible. The native pony takes kindly to oats, as the "hombre" does to the soldier's ration, and the superiority of the American over native forage is soon evidenced by the improvement in his appearance. The extra cost of the American forage will be more than offset by the increase in the length of life and usefulness of the American horse.

**Buildings.** In America the public buildings were generally reported in fair to good condition, and appear to be kept in as good repair as is possible with the allotments made therefor. At seventeen posts the barracks were reported to be overcrowded or insufficient.

Major Irons (Colorado) says:

As a general rule the barracks and quarters at most posts are not in as good repair as they should be, owing to the limited allotments made for this purpose, probably due to the fact of previous small garrisons. Most of the barracks are only suited for housing about 60 men. \* \* \* It certainly would seem to be economical to the Government to establish electric-light plants at military posts or buy the electric light furnished by private corporations.

The miserable characteristics of such temporary structures as the nipa huts for people who do not go barefooted, but detest vermin, to be hated need only to be endured. In the days before the steam engine had reached the plains, but the redskin and the emigrant were contesting its domination and the soldiers had its discomforts to endure, some may remember when somewhat better shelter was secured by the soldiers tramping out the adobe with their naked feet and then molding and sun-drying it. But it seems held to be almost deadly to sleep habitually near the ground in the Philippines; even the commonest hut being upon stilts, and the expensive permanent houses habitually have only the roomy hard-wood upper floor occupied by the persons of the family. The construction of these more comfortable buildings is notable, though less pretentious than the great churches or palaces. The tall corner posts of remarkable timber, capable of great resistance, give a framework as independent of the walls as our modern steel constructions, so not only insects but earthquakes are doubly guarded

against. The buildings of the Spaniards are founded on experience—creditable, and well worth careful study. The admirable proportion of their numerous columns and arcades must have been noted by many in Cuba, and are specially well suited to the climate. The boats and vehicles are about as specialized as the buildings.

The Philippines were originally a region of pirates, and what they accomplished by land and water and how their boats are adapted for use in those estuaries and seas furnishes food for reflection for the curious. In most of the smaller towns where active operations were in progress the friars were proverbially absent, apparently repelled by the natives; but the priests' houses, called convents, were usually among the largest in town and comparatively empty. They were admirably adapted for barracks in such emergencies. But now the time for a permanent location and policy for the troops has arrived for the northern and middle provinces.

In the archipelago the Army is crowded into priests' homes, called "convents," or the storehouses, called "camarines," or any procurable houses, the roofs of which vary from the heavy tile or hot corrugated iron to the nipa thatch made from swamp plants; and the floors might be the heavy and broad hard-wood planks so remarkable and necessary to resist the ants, or mere split bamboo, or woven basket work, which yields or shakes under every tread or weight. So nothing perhaps presses more for immediate attention than the immediate construction of permanent and creditable posts at such points as may be chosen as the most permanent strategical centers. By the act approved February 14, 1902, the sum of \$500,000 was appropriated for the establishment of a military post in the vicinity of Manila, P. I., and the act approved June 30, 1902, appropriates \$1,500,000 for the proper shelter and protection of officers and enlisted men of the Army lawfully on duty in the Philippine Islands, including the acquisition of title to building sites. These are steps in the right direction; and carefully considered plans for the best and most desirable buildings at the start will no doubt be adopted. Nipa barracks may be cooler and better than canvas, but nipa is fairly suited only for little, poverty-stricken huts; it is never fully satisfactory, does not stand storms well, lets in rain, dust, and vermin easily, and needs repairs constantly. Poor people have poor ways sometimes; and the construction of wharves, bridges, houses, etc., in these islands varies from very excellent permanent and enduring ones to the flimsiest, which are not expected to resist the forces of nature in its floods, typhoons, earthquakes, volcanic eruptions, etc., but are readily replaced when destroyed, and the "hombre" feels driven to it by authority or desire. The tule placed butts outward on the quagmire roads, or the quaking bridge under the heavy carabao and sharp-rimmed solid-wheeled carts, the wattled embankments or camarines, the scarcity of nails, the usual dependence upon posts to uphold the roofs, the lack of cellars or glass, and many other features, may tell of a situation our presence may largely modify rather than we conform to all as done by the Filipinos. The English and other European armies in Asia give us a better model for housing our soldiers than we can find in imitating peons or peasants. The padre's manse, or such two-story quadrangular educational buildings as that at Iloilo, prove such satisfactory barracks, however, that it may be well to adopt a similar design for barracks, recognizing that some of the Posts selected may prove of more temporary importance than at first considered; but the buildings may then be excellently

converted back to civil uses, such as high schools or Government offices. Public buildings are now being generally constructed in towns of similar importance in America, and are equally or more needed in these islands; and that this is not without precedents is shown by such instances as the military buildings at Carlisle and Fort Yuma, being now used as schools. A well-considered policy for the construction of buildings on these lines may prove both beneficial and economical in the long run, and impress the natives with our intention of permanence.

Colonel Sanger (Philippines) says:

Unless we expect the Army to develop a positive dislike for service in the Philippines, more attention than has been practicable heretofore must be paid to the personal comfort of officers and men. \* \* \* In all coast towns the sites of posts should, when practicable, be near the sea, and the quarters, barracks, stables, and storehouses be constructed on a generous plan, and so designed as to afford ample protection against the long periods of heat and rain which prevail all over the archipelago.

Major Eastman (Fourth Separate Brigade) says:

The demand for houses for business purposes is increasing, and rents are high, and the continued occupation by the military of buildings suitable for business is a source of much irritation to the natives and business men in almost all of the seaports of the brigade.

Tempered with American shrewdness and energy, evidently Manila is to be classed as a metropolis. Its requirements are like Chicago, from the tunneled river to its widespreading influence. Even in such a center exigencies, readily anticipated, suggest for public use strong, commodious buildings on the water front, say at both sides of the mouth of the Pasig River. Security and insured communication may deserve some fair consideration from the first.

With very few exceptions the supply and quality of water at the posts appear from the reports to be satisfactory. At three posts the supply was reported to be inadequate and at five the quality was stated to be unsatisfactory.

Major Irons (Colorado) says:

The water supply at all posts is one which requires much attention, as either the supply is small or the system of pipes is antiquated or not sufficiently large to render adequate protection against loss by fire. As a general rule it is impossible to save a burning building at a post from absolute destruction, and the best that can be done is to protect those in the vicinity.

The permanent supply of water at Fort Grant, Ariz., is so doubtful that the utility of its being kept up as a permanent post is questionable. The majority of the buildings are in such a dilapidated condition that it will require a large expenditure of money to make it a modern post, as many of the buildings would have to be replaced by new ones. Considering the location, condition of buildings, and water supply, it should only be held temporarily or abandoned.

The subject of water in the Philippines is treated in my annual report for last year, and the conditions there are well understood. The supply is generally abundant, but the quality is such that boiling or sterilizing is necessary before drinking. The division order requiring this to be done has invariably been reported as complied with; but the recklessness of young soldiers is remarkable, and every epidemic gives new proof of it. Therefore, when the presence of cholera was reported, attention was invited to the reasonableness of waiting till it spent its sharpest virulence before sending many fresh troops there, or returning the less needed absent. This custom prevailed at one time in relation to our Gulf coast when infected with yellow fever.

**Bathing facilities.** The bathing arrangements were reported to be satisfactory except at eighteen posts, where the facilities were inadequate.

**Sewerage and drainage.** The sewerage and drainage systems are apparently satisfactory at a large majority of the posts. The conditions in this respect were reported unsatisfactory at 26 posts. New sewerage systems were needed at 17 posts, exclusive of the posts in Alaska, where there are no sewerage systems.

Major Irons (Colorado) says:

All posts which are intended to be occupied by troops for any length of time should have a modern system of sewerage, and all earth closets and cesspools at posts should be abandoned. Forts Duchesne, Washakie, and Whipple Barracks all need sewer systems.

Opportunities for swimming also deserve attention.

**Quartermaster stores.** The reports show the stores furnished to be very generally of good quality, sufficient in quantity, and properly cared for. At three posts, or less, some question was raised on minor matters like the supply of clothing insufficient, or the inferior quality of some article like stove furniture for officers' quarters. But in matters of general supply, so small a percentage of complaint is sure of remedy if well founded, and is proof of general excellence.

Colonel Sanger (Philippines) says:

**Khaki.** The Government khaki clothing continues to be the subject of much complaint, as it does not hold its color, changing in spots. This is in marked contrast to the clothing made from the khaki purchased in Singapore and Hongkong, which apparently never fades.

Major West (Fifth Separate Brigade) says:

The khaki cloth that can be procured in this country is more suitable for wear here than the khaki cloth sent from America. It holds its color better and is thinner in texture. The lighter in weight a cloth is (having due regard for strength) the more suitable it is for this hot climate. Some of the American cloth turns whiter with each washing, and also in some cases gets spotted; perspiration whitens it. It is too thick and closely woven for wear here.

The modifications of the uniform as actually worn in the Philippines were probably founded on experience, and some may yet be formally adopted, such as fastening the collar with collar button instead of feminine hook and eye, or also having the strap double over a loop on the shoulder, with buttonholes at the smaller ends, near the collar. Wearing the belt under the blouse is cooler and does not wrinkle or disfigure it for social wear like having it outside. A long scabbard, in difficult marching, increases inefficiency on a "hike."

Colonel Burton (Cuba) says:

**Campaign hat.** The campaign hat is excellent in shape and color, but should be made of better material. One shower destroys its shape, and nothing but resizing will restore it. The additional cost would be more than compensated by increased durability, and, with a better hat, uniformity of appearance would be preserved, which is now impossible.

Colonel Garlington (Lakes) says:

The quality of the campaign hat is not entirely satisfactory. I renew my recommendation of several years ago that the campaign hat be made of wool of natural color, thus avoiding the deleterious effects of dye, and issuing the hats at least uniform in color.

The greater coolness insured by the corrugated ventilation between sweat band and hat has been mentioned. Some claim it shelters vermin. Soldiers have served in the Tropics with breastplates and hel-

mets, but the hat and shirt suit our men best for roughing it. Can they be allowed this as best?

**Blanket.** Major Bailey (North Philippines) recommends that a blanket of lighter weight than the present one be supplied troops serving in the Philippines.

Major Reynolds (Dakota) says:

**Lockers.** I believe a strong canvas bag with a suitable lock, similar to a mail sack, would be better than a box locker for transportation. The bag could in barracks take the place of the barrack bag, or make the barrack bag of heavier stuff and require the soldier to put the extra stuff in it when he changes station.

**Tentage.** In few places is tentage essentially more unsatisfactory than in the Philippine Islands, where to maintain their health people must strive in every way to live high off the ground; and, en passant, it may be that this disregard of all questions of the best tentage has prevented almost everyone I have met from noting anything of the proposed Munson tent, as no line officer has been found who had noted its existence, though at quite a number of posts there were a few tents up for such purposes as contagious sickness or covering stores or sinks, and in the emergency hospital at Manila some of these tents were standing; and they were sent out for experiment and report. But very little attention is given to the covering in mere temporary emergency cases. Is there no way of getting these tents tried by line officers?

Major French (First Separate Brigade, Philippine Islands) says:

**Gold medal cot.** The gold medal cots supplied to troops in this brigade have given good service; however, numbers have been submitted for condemnation on account of the canvas covering being worn out, the wood and metal parts being intact. It would seem that canvas covers to fit could be supplied the various station quartermasters, and in this manner many cots could be saved to the service. As all stations are not supplied with a saddler or other persons competent to cut and make this cover, it would not be advisable to supply the canvas only. The completed cover is therefore recommended.

The repair of stores is inadequately provided for in our service, as has been noted by such officers as General Sanger.

Major Smith (South Philippines) says:

**Boxing of clothing.** Clothing should be put up in smaller boxes to facilitate handling where it has to be unloaded in small boats at the various stations in these islands, and if packed in assorted sizes could be more readily issued to small organizations without being repacked at the issuing depot.

**Field ranges.** There has been great loss to the Government in the burning and rusting out of the field ranges furnished by the Quartermaster's Department. The inside plate, back of the fire-box, soon becomes burned out, when the range is unserviceable. If this part was made thicker and extra grates as well as other spare parts furnished, their serviceability would be much prolonged.

This is also along the line of preserving the life and utility of bulky and expensive articles by prompt attention and provision for repair.

Major Smith also says:

**Cooking utensils.** Cooking utensils, such as boilers, are bulky for transportation and should be made of different sizes, so as to fit inside of each other, to be more closely packed.

Can not this be gained in some cases by adopting slightly conical shapes which will more readily nest? Even a hundred unnested tin cups look bulky in company property.

**Fuel and forage.** In America fuel and forage were reported of good quality and properly protected and cared for, with the



following exceptions: Wood of poor quality at three posts, coal poor at one and very bad at another, and forage poor or unsatisfactory at two others.

In the Philippines much attention has been given the subject of native forage, from the fact that much of the diseases and mortality among the public animals there have been attributed, in a measure, to the feeding of native grasses and grazing. Native grasses should almost never be solely relied upon for sustenance, and all animals should be partly or wholly fed on hay and oats, no matter whether the fly or feed gives surra and the prevailing diseases.

Thirty-two of the national cemeteries were inspected as prescribed in A. R. 967, during the fiscal year ended June 30, 1902. The maximum salaries paid superintendents is \$900, and minimum \$720. Twelve received the maximum, while four received the minimum. Some few are specially mentioned as very efficient in the performance of their duties, while the reports state that all the cemeteries show evidence of careful and painstaking attention. The efforts of superintendents at Barrancas, Fla., Loudon Park, Md., and San Antonio, Tex., to keep the grounds in good condition appear to be handicapped by inadequate civilian assistance.

The inclosures, which consist of stone and brick walls, iron, wood, and wire fences, are generally in good condition, though some walls need repair, such as repair of foundation, repointing, and repainting. Nearly all graves are well sodded, and all are properly marked except 36, some of which are recent interments. In the cemetery at Camp Butler, Ill., the trees are too thick to permit growth of good sod, and the inspector has recommended that some trees be removed. The Presidio of San Francisco, Cal., has had the largest annual average rate of interments (303.2 for the last ten years), and there is still room for many additional graves. The capacity will be considerably increased as soon as the remaining 4 acres of the new plot are improved. The difficulty and desirability of establishing this cemetery, which was then considered remote from our battlefields, may illustrate how desirable a national cemetery in the Philippines is now.

The lodges, usually constructed of stone or brick, are of sufficient capacity and serve their purpose well. Some minor repairs are needed. With the exception of Rock Island, Ill., all are equipped with a flag-staff. Wooden flagstaves, much worn, are still maintained at some cemeteries, but should be replaced with the modern ones of iron.

The subject of water supply has received considerable attention, which has resulted in the installation of good and sufficient arrangements at nearly all cemeteries. The Presidio of San Francisco, Cal., has an artesian well, which, however, does not produce an adequate quantity for all occasions. A large number are equipped with wells and cisterns which afford a reliable supply. Some few are connected with city water mains.

The facilities for drainage and sewerage are generally reported in good condition and satisfactory. Including the pay of the superintendent, the average cost of maintaining a cemetery for one year is about \$1,849. If there ever was a time when there were certain show cemeteries that received special attention, they are all good now; and it is submitted that there should be one near every Soldiers' Home, and not have several systems of Government burying grounds; but doubtless the board of management has considered the matter and prefer to appoint their own burial corps.

During my tour in the Philippines I observed that <sup>American graves in the Philippines.</sup> some American graveyards had been established. If the removal of the dead to America is discontinued, even partially, the establishment of a national cemetery like ours in the City of Mexico might be worthy of consideration. It was also noted that the spot where General Lawton met his soldierly and untimely death is not marked, while General Egbert's is. Is this not worthy of attention?

<sup>Post cemeteries.</sup> As a rule, the post cemeteries conform to the requirements of the regulations and were in good condition. One was overgrown with weeds, and the fences of four were in need of repairs; two were unsuitably located, and many graves were without headstones at another.

Major Reynolds (Dakota) remarks:

The post cemeteries throughout the department should receive more care. They are, as a rule, bleak looking and unattractive. That at Fort Meade might well be moved from the rocky hill it now occupies to one of the near-by glades. The bodies in the old cemetery at Fort Snelling should be moved to the new cemetery.

Would it not be well to consider the establishment of a national cemetery in every department and in the Philippines? In no other place are the remains of soldiers more decorously cared for and guarded. And when one was established at the Presidio of San Francisco it insured very decided improvements. Those who died in the service of the country seem to deserve such assembling together for care.

#### WATER TRANSPORTATION.

Inspections of army transports and investigations of matters pertaining to their service by officers of this department have been carefully and systematically pursued throughout the year, and the conditions reported and recommendations and suggestions offered by inspectors for the amelioration and remedying of unfavorable and adverse conditions have resulted in numerous changes and improvements tending to the betterment of this essential contingent of the Army. The cost of maintaining and operating the line of vessels now engaged in the transportation of troops and supplies has been considerably reduced, while, at the same time, greater facilities and dispatch in the business transacted, as well as comfort to passengers, in comparison with previous operations, have shown progressive improvement. The service is rapidly assuming those stable and economical methods characteristic of successfully conducted enterprises of a similar nature, and which can only be attained by experience and constant inspection and attention to details. The mobility of an army is one of its most important qualities, and depends largely upon its transportation and in every confidence being reposed in it. The immense improvement in the efficiency effected since the Santiago campaign should bring gratification to the heart of every American who has a friend or relative in the Army.

The necessity for chartering merchant vessels as an auxiliary to the transport fleet ceased with the beginning of the fiscal year, when the volunteer troops in the Philippines had been returned and replaced with regulars. And the number of Government-owned transports in the service has since been judiciously reduced by the sale or putting out of commission, pending more favorable disposition, of a number of the less desirable. This may indicate the approach of a marked change, but what has been learned or acquired can not soon be entirely lost or forgotten.

During the year 17 Government transports were inspected and reported upon by officers of this department, 98 inspections being made and reports rendered. There were also received at this office 31 reports of officers in command of troops on army transports, rendered in compliance with paragraph 199, Regulations for the Army Transport Service. All of these reports were of transports sailing from ports in the United States to Manila, P. I., and Alaska; the service to Cuba and Porto Rico having been discontinued by Government transports and provided for with regular lines of merchant steamers under contract in effect from the beginning of the year. The transports engaged in inter-island service and those out of commission were not subject to inspection, but there were rumors that there were some occasions when the need was felt.

The personnel of the service has greatly improved in efficiency during the year, and numerous changes and reductions have been made—positions which had become perfunctory abolished and others consolidated on account of the lighter duties required by the reduced fleet. This gives every confidence if further improvement is needed it will be attained; for Americans fairly claim that they habitually “get there.” The cost of repairs has been considerably minimized, especially at home ports, as has also the cost of supplies furnished.

Lieutenant-Colonel Chamberlain (California) says:

During the past fiscal year the transport service on this coast has, as formerly, been conspicuous for its efficiency, and the service has promptly and satisfactorily met every demand made upon it. During the past fourteen months there has been marked improvement in the fiscal affairs of the service. \* \* \* Requisitions for repairs and supplies are carefully scrutinized, supplies are carefully inspected, and except in cases of emergency they are purchased under competition at prices which I believe to be reasonable and well within current prices. Recently, when transports have arrived in this harbor, accurate inventories have been taken, surplus articles have been removed for use elsewhere, and public property and stores have been duly accounted for. Special attention has been given to the subject of expenditures of public property and supplies. \* \* \*

It is believed that agreements whereby competition in certain lines of work was avoided, as noted in former reports, are, for the time being, broken, but only by constant alertness on the part of transport officials and by cooperation and competition on the part of the navy-yard authorities can a recurrence of these conditions be averted. This is fully appreciated by the general superintendent.

\* \* \* \* \*

Much of the work of current repairs which was formerly done in port by outside parties is now done by the crew, either at sea or in port. This change has materially reduced the cost of such repairs without in any degree reducing the quality of the work or the efficiency of the transport service. \* \* \*

Painting ships. Since April 1, 1902, ships have been painted at this port, either in whole or in part, as was deemed advisable and necessary. This painting, except of ships' bottoms, has been done by the crew, assisted, when necessary, by men especially employed for that purpose. The average cost per ship for material and labor, including pay of crew while so engaged, has been \$536.81. In my judgment, all necessary painting has been done and the quality of the work has been satisfactory.

For ships painted in this port between July 1, 1901, and April 1, 1902, under the former system, the average cost was \$2,651.23.

Reports received in this office also indicate an improvement in the essential features of the vessels retained in service, such as life-saving apparatus, arrangement and comfort of staterooms, cabins, and troop compartments, heating and ventilation, cold-storage capacity, and hospital arrangements.

Coal. The important question of coaling and contracting for coal for the use of transports may also be mentioned among the improvements noted.

Lieutenant Colonel Chamberlain, referring to the cost of coal in San Francisco (July 8, 1902), says:

The present contract for coal for transports calls for Wallsend, with the privilege of furnishing, when Wallsend is not available, Wellington, Comox, or Nanaimo. At least 70 per cent is to be Wallsend, of the remainder not to exceed 15 per cent Wellington, and 15 per cent Comox or Nanaimo. The contract price is \$6.42 trimmed in bunkers.

The former contract called for Wallsend, with the privilege of furnishing, when Wallsend was not available, Comox or Nanaimo, at least 60 per cent Wallsend and not more than 20 per cent each of Comox and Nanaimo. The contract price was \$8.29 trimmed in bunkers.

In reporting conditions at Honolulu, May 12, 1902, Lieutenant-Colonel Chamberlain also says:

The present contract calls for Roslyn coal from the Roslyn mines in the State of Washington, contract price \$6.60 per ton delivered alongside the transport, either at the wharf or on scows as required. So far as I have been able to learn this coal has given satisfactory results. In steaming qualities it is estimated to be about 15 per cent inferior to Wallsend coal, which in turn is about 20 per cent inferior to Pocahontas and Cardiff coal.

The coal used by the Navy Department is Pocahontas, of which the last cargo cost \$9.25 per ton.

There are no coal sheds in Honolulu except those belonging to the Navy Department, all coal being piled in the open. It is certain that all varieties of soft coal deteriorate perceptibly when exposed to the weather, especially where the rainfall is excessive, as in Honolulu.

During my inspection of the conditions at Honolulu in August, 1901, I found that transports stopping at that port were coaled by extra labor, engaged only when required. The *Meade*, while I was there, took 1,041 tons of coal; total cost, including transportation from coal pile to wharf, loading on ship, and trimming in bunkers, \$1,649.40, or \$1.58 per ton. The former contract for taking coal from wharf and putting in bunkers averaged \$1.22½ per ton. The *Buford*, the last ship coaled prior to the *Meade*, took 515 tons of coal, the total cost for labor being \$1.02 per ton. The difference in the cost of coaling those ships is supposed to be due to the fact the *Buford* is thought to be one of the easiest and the *Meade* one of the most difficult ships in the service to coal.

Would it not be better if the Army used navy coal at these foreign stations, and not try to run two coal piles in sight of each other? The Pocahontas coal used by the Navy must be good enough for the Army, if permitted to use and pay for it.

A matter of such small importance to the Government as the price of the daily meals on the transports being raised to \$1.50, though it costs the Government on some of the best-fed transports less than \$1, may deserve consideration. Incidents illustrating what a heavy drain it is and that it can be ill afforded need not be given.

Maj. J. E. Macklin, Eleventh Infantry, commanding troops on voyage of transport *McClellan* from Manila to New York, October 18 to December 21, 1901, says:

The charge of \$1.50 per day, while small for good hotel accommodations, is larger than the daily cost of the ordinary army mess, while the meals supplied are much inferior. Should the actual cost of the meals reach this figure it must be due to mismanagement or waste. It may be well to continue this price for tourists traveling on the transports, but for army officers and their families \$1 per day seems sufficient charge.

Lieut. Col. A. G. Hennisee, Eleventh Cavalry, voyage of U. S. army transport *Crook*, New York to Manila, December 5, 1901, to February 3, 1902, says:

I respectfully suggest that the facilities for cooking and serving food on the army transports restrict the quality of the food, so that board which costs more than \$1 per day can not be furnished; that the present price of \$1.50 per day is excessive under reasonable management.

No expense imposed upon an officer's family is probably a greater strain upon his purse than service in the Philippines. Three moves are said to be equal to a fire, and this compels at least two. A good boarding house in Washington charges \$20 or \$25 a month for board. At equal prices it is believed the majority of officers' families would not expect to live better than in the capital, but would be equally contented with similar fare on board our transports. But the charge approximates twice as much. And it may be noted that even the water transportation for household and family effects seems inadequate. The principle of having the officers on farthest duty live at least without additional expense, if avoidable, over those in Washington seems well to keep in view, like the sales of stores at cost.

Steward's department. Capt. H. H. Benham, adjutant Second Infantry, commanding troops on transport *Kilpatrick*, Manila to San Francisco, September 12 to October 7, 1901, says:

All departments of the ship seem to be well managed except the steward's, of which there has been well-founded complaint. The supplies furnished by the Subsistence Department, excellent in themselves, were generally ruined by poor care and poor cooking.

Lieut. Col. T. F. Forbes, Twenty-ninth Infantry, commanding troops on transport *Sheridan*, San Francisco to Manila, April 1 to May 1, 1902, says:

The cooks, stewards, and particularly the waiters seemed to be men unfamiliar with their duties. It is recommended that men more competent be employed, if necessary at an increased wage, to serve passengers, as it is essential to comfort that experienced servants be provided. As this department of the ship is conducted without expense to the United States, as far as passengers are concerned, being really supported by the mess charges paid by officers and others traveling on transports, and in some cases being conducted at a profit at the present rate of charge, it would seem to be reasonable that the best service obtainable should be furnished.

First Lieut. J. B. Schoeffel, Ninth Infantry, commanding troops on transport *Relief* (inter-island service), August 16, 1901, says:

There was no regular commissary aboard. Mr. J. McQuade, the commissary agent, was in charge of that department, which was most ably cared for. There was no regular quartermaster aboard, though Mr. G. W. Muller, quartermaster agent, had charge, and ably performed the duties of that department.

The messing arrangements were the most perfect of any transport on which I have traveled; for while it was necessary for the company cooks to prepare the food for the men, there was plenty of it, and it was well served to the men who were able to enjoy it at mess tables in a regular mess room. The cleanliness of the ship has been most excellent, due to a great extent to the men not being compelled to eat on and about decks.

Lieutenant-Colonel Hennisee (Eleventh Cavalry) also says:

I recommend that civilians (especially women and children without male escort to be responsible for them) not connected with the public service should not be permitted to travel on Government transports. Such travel is sure to result in a great disadvantage to the passengers who are under orders to take the voyage. They want the best accommodations, seats at the first table, are not easily satisfied, and are a constant disadvantage to the junior officers.

Lieut. Col. P. H. Ray (Seventh Infantry) commanding troops on transport *Meade*, San Francisco to Manila, March 1 to April 21, 1902, recommends:

That only persons in the service of the United States, civil or military, with their families, be allowed passage on a transport, and then not in excess of the capacity of the ship.

Command of ship. Lieut. Col. W. Quinton, Fourteenth Infantry, commanding troops on transport *Sheridan*, Manila to San Francisco, July 19 to August 18, 1901 (since retired as brigadier-general), says:

The master of the vessel should have the same authority as he would if in command of a merchant ship, and the crew should be governed by the merchant shipping rules. No rules or regulations formulated by the Quartermaster's Department can do away with these. It must be held in remembrance that the master is not commissioned; neither is the crew enlisted. The master, however, has a license to be carefully guarded if he desires to continue on sea service, and in guarding this license circumstances may bring him in conflict with the rules and regulations made by the Quartermaster's Department or the orders of the transport quartermaster. Such instances have occurred and are liable to occur again. In my opinion the master should be commissioned, the crew enlisted, \* \* \* or the same system adopted, identical in every particular, followed by the various trans-Atlantic lines.

Lieutenant-Colonel Chamberlain (California) says:

Crews. In organizing the transport service and in the preparation of regulations governing same, no adequate provision was made for maintaining discipline among the crew.

For the mercantile marine service the Revised Statutes of the United States prescribe certain penalties and punishments. These have not been made applicable to the transport service, and it has, I believe, been ruled that the crews are not under military discipline, even as "camp followers." Therefore the ship's officers find themselves responsible for the control of the crew, with no lawful means of enforcing discipline, except resort to the brig. Sailors, as a class, are said to have little horror of the brig or of bread and water diet. The unanimous opinion heard is that no form of punishment is effective except it involves a loss of pay.

These deficiencies in the law and regulations have been and are a source of embarrassment and trouble to the transport service. Steps should be taken to provide means of enforcing obedience and discipline. The crew should be shipped for the round voyage, in such manner and under such rules and regulations as may be found practicable and effective.

Colonel Sanger (now brigadier-general), Division of the Philippines, in an indorsement dated April 23, 1902, says:

I am aware of the many difficulties to be overcome; that the transports have carried thousands of persons and tons of freight, and thus far have met with no serious accidents, which is, to say the least, a very fortunate circumstance; nevertheless, it is believed by many perfectly impartial witnesses, myself among the number, that good crews can be had for less wages, and that they would be much better if more permanent in character.

General remarks. The practicability of discontinuing transport quartermasters and commissaries and substituting pursers or quartermasters' agents, the proper amount to be charged for subsistence to saloon passengers, and the status and discipline of transport crews, are important questions in connection with the transport service and are ably presented and commented upon in reports of Lieutenant-Colonel Chamberlain (Department of California) and Maj. C. A. Devol (general superintendent army transport service, San Francisco), dated June 6 and July 1, 1902, respectively, and in the indorsement thereto of Maj. Gen. R. P. Hughes. How greatly the transport service has improved and wherein improvement is still practicable seem worthy

of constant and careful attention, and the reports mentioned may serve to aid this process of improvement, if not already surpassed by the progress made. A partial list of items referred to in these papers might include—

1. Lack of discipline and attentive alertness where the civilians are unfinable.
2. Much mixed or amateurish methods.
3. Excessive charges for food.
4. Master to command ship and a bonded purser to replace the transport quartermaster.
5. Painting of ships by crews.
6. Relying on Treasury Department for inspection of hulls, boilers, and equipment of transports.

The beneficial change at West Point effected by introducing "general-service" men finds a similar opportunity, possibly, in this transport service, by properly unifying and adjusting the duties according to the new environment.

The great success attained already gives promise that whatever is still needed will be fully accomplished and such a system be now definitely formulated as will serve as a model in every future emergency. All Government and military movements in Asia may find almost as close connection at times with the question of water transportation as it does with railroads on this continent.

Perhaps more attention may still be needed to the assured seaworthiness of the largest possible equipment of life-saving appliances and exercise of the crew at emergency stations at irregular periods.

Would not a canvas swimming tank like those on the English lines be beneficial on our transports for long voyages? They enlist interest and encourage activity and cleanliness.

The tendency to hire land transportation instead of organizing it as a military and sworn command has at times led to suffering and loss in other armies, until civilized nations showed how it could be properly controlled even among deserts or any other strain of war. Water transportation naturally presents similar problems, and the makeshift methods pay in blood for what is saved in money, whether resorted to on land or water. Our owned transports are far more efficient and amenable to ordinary military contingencies and have a finer esprit du corps than can be expected of any heterogeneous or hired vessels. The heart must be in the work and loyalty to it alone dominate if perfect success is to continue—such as is due to a national cause amidst matters of such pith and moment. That the officers who have had charge are able and enthusiastic and whole-souled in their earnest endeavor to attain success is proved by their work, and must be recognized by all who have the interests of the Army or the Government at heart.

Detailed histories and descriptions of the various army transports have been given in several of my preceding reports.

The following succinct statement of the inspections of transports is self-explanatory and is indicative of the services performed by them during the year:

Name of transport.	Number of inspections by officers, Inspector-General's Department.	Number reports under paragraph 199, Transport Regulations.	Date of last inspection.	Where inspected.	By whom inspected.	Between what ports plying.
1 Buford .....	7	1	June 2, 1902	San Francisco, Cal.	Lieut. Col. J. L. Chamberlain, Inspector-general.	Manila-San Francisco.
2 Crook .....	4	1	Apr. 21, 1902	do	Capt. G. W. Ruthers, commissary in charge of office.	Do.
3 Dix (formerly Samos) .....	1	1	Feb. 25, 1902	Seattle, Wash.	Maj. H. E. Tullerly, Inspector-general.	Seattle-Manila.
4 Egbert .....	1	1	Feb. 18, 1902	Manila, P. I.	L. Col. S. C. Mills, Inspector-general.	Manila-San Francisco.
5 Grant .....	9	2	Mar. 25, 1902	do	Maj. R. D. Potts, Inspector-general.	Do.
6 Hancock .....	9	3	May 24, 1902	do	do	Do.
7 Ingalls .....	2	2	Oct. 10, 1901	do	do	Philippine Island ports.
8 Kilpatrick .....	12	4	May 16, 1902	do	Maj. H. P. Kingsbury, acting Inspector-general.	Manila-San Francisco.
9 Logan .....	2	1	May 28, 1902	do	do	Do.
10 McClellan .....	5	2	Apr. 20, 1902	do	Maj. R. D. Potts, Inspector-general.	Manila-New York.
11 Meade .....	11	2	June 16, 1902	San Francisco, Cal.	Lieut. Col. J. L. Chamberlain, Inspector-general.	Manila-San Francisco.
12 Relief .....	1	1	.....	Manila, P. I.	Col. J. P. Sanger, Inspector-general.	Interisland service.
13 Rosecrans .....	1	1	Dec. 24, 1901	do	Col. J. P. Sanger, Inspector-general.	Manila-San Francisco.
14 Sheridan .....	10	5	May 1, 1902	do	Maj. R. D. Potts, Inspector-general.	Do.
15 Sherman .....	3	3	May 22, 1902	do	Maj. H. P. Kingsbury, acting Inspector-general.	Do.
16 Sumner .....	4	4	June 19, 1902	do	Maj. J. C. Gresham, acting Inspector-general.	Do.
17 Thomas .....	11	5	June 9, 1902	do	Maj. H. P. Kingsbury, acting Inspector-general.	Do.
18 Warren .....	6	3	June 25, 1902	San Francisco, Cal.	Lieut. Col. J. L. Chamberlain, Inspector-general.	San Francisco-Seattle-Alaska.
Total .....	96	31				



## SUBSISTENCE DEPARTMENT.

The reports received show that the subsistence supplies furnished the Army during the past year were very generally of excellent quality and sufficient in quantity. The food supply is good, and the zone in which fresh meat and ice are furnished has widely extended in the Philippines. Unfortunately, in the southern islands, on account of the lack of refrigerating plants or ships, refrigerated meat or ice is not available, and the ravages of rinderpest have so thinned out the native cattle that it is difficult to obtain meat of any character.

Very few complaints of inferior quality of stores have been reported. How extremely limited this was in a business so widespread and so sensitive every business man will appreciate. It is a vote of confidence in our admirable Subsistence Department by an overwhelming majority.

Losses on nearly all kinds of subsistence stores or supplies were comparatively great in the Philippines, where large quantities were condemned. Possibly larger recently than for thirty years.

The inventory and inspection reports received at this office show the following losses by condemnation during the fiscal year 1902, to wit:

	Beef.		Potatoes.		Onions.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
United States .....	1,631	\$114.59	38,785	\$592.28	33,647	\$796.54
Philippines .....	57,167	3,806.93	2,133,876	52,322.29	375,589	20,820.24
Cuba and Porto Rico .....	81	10.33	2,419	83.82	125	4.89
Alaska and Hawaii .....	3,791	308.72	137,397	1,732.27	38,351	1,248.65
Transports .....	26,616	1,950.49	59,018	1,446.38	6,517	203.37
Total .....	89,466	6,191.06	2,371,105	56,177.04	454,229	23,073.69

It seems that all classes of canned goods deteriorate and become unfit for use very rapidly in the Tropics, and large quantities of them are condemned and eliminated from the service. Lacquering of the cans has been recommended, and where it has been tried it is reported to have been beneficial. The favorable difference in the percentage of damaged square compared with round tins was adverted to; though superior tin and workmanship may be required. A jolt flattening in the rounded side of one tin at a single point under pressure which the square tins better withstand may start a leak which rusts and ruins the remainder of the box-full beneath. The excessive rust and moisture and destruction of packages by ants, etc., are phenomenal in the Tropics. The intelligent and persistent effort to get the best results and guard against the special evils are evident on all sides, and meets with increasing success.

Colonel Sanger (Philippines) says:

In the Subsistence Department the most perishable stores are fresh meat, vegetables, flour, bacon, preserves, and jellies; of the latter, current jelly appears to have been more perishable than any other preserves. The greatest care is now taken in handling fresh vegetables under Division Circular No. 1, 1902; but losses will undoubtedly continue until arrangements can be made to reduce the time consumed in transporting them from the depot in Manila to the stations of the troops. It is suggested that all barrels and kegs have wooden hoops in the place of iron, as the latter are soon destroyed by rust, and that flour be boxed rather than sacked.

The prevalence of cholera and the imperative necessity of cleanliness in and about all mess kitchens in this climate have made it obvious that provision should be made for dishcloths, wiping cloths, cooks' aprons and caps, and it has been suggested that they be kept in stock by the Subsistence Department for issue or sale as may be deemed best. Dishes that are well washed, but wiped with a piece of dirty gunny-

sack or some other substitute, by a soldier in a dirty suit of clothes, saturated with perspiration, can hardly be called clean. The messes do the best they can with the means at hand, but they are most inadequate.

Major Bailey (North Philippines) says:

The reports of inspectors show that the troops are well fed and are supplied with everything that is required for their health and comfort, except at some of the inaccessible posts, where fresh meat and vegetables can not be regularly supplied, owing to the difficulty of securing necessary transportation. Fresh meat and vegetables have frequently had to be destroyed before reaching their destination on this account. Many of the chartered transports plying between interisland points are not supplied with cold-storage facilities or with ice chests of sufficient capacity to take proper care of the fresh meats transported by them. This defect should be remedied as speedily as possible in the interests of economy and welfare of the troops. Attempts have been made to furnish beef on the hoof to some of the outlying stations, but it has not proved a decided success, owing to the cattle stampeding or dying en route.

Major Eastman (Fourth Separate Brigade) says:

I have but few recommendations to make concerning the Commissary Department. Its supplies are generally ample and of good quality. There has been a large loss of certain canned goods, such as pineapples, peaches, damsons, etc. It has been observed that canned goods packed in sawdust are in much better condition here when opened, fewer cans are found punctured, and the dust absorbs the moisture or juices if a can bursts, and only two or three cans in proximity are ruined instead of the whole case. Lacquering has also proved beneficial.

Major West (Fifth Separate Brigade) says:

The stations have been well supplied with stores, except fresh beef, potatoes, and onions.

Owing to the absence of a cold-storage plant at Iloilo, it is not practicable to supply stations with refrigerated beef. The beef is purchased in the locality of each station where cattle can be procured. Owing to the great loss of cattle by the rinderpest, cattle are very dear, and some stations are not able to get beef.

Some stations are unable to get regular supplies of fresh vegetables, owing to there being infrequent visits of transports.

There has been a large amount of subsistence stores condemned during this fiscal year. The cause of this loss can be attributed to climatic influences—heat and moisture—the rusting of cans, and fermentation of the contents. Weevils get into the flour and rice and worms into tobacco and cigars.

To decrease this loss it is recommended that the cans be well made and thicker than usual and that they be very carefully covered with two or three coats of lacquer.

Some of the canned flour (50-pound cans) has been found to contain weevils. Some of the cans are not properly soldered. One can I saw was open along the whole corner from top to bottom. So little solder had been used that it was difficult to see any at all. The top piece of tin, put on after the flour was put in the can, was also found not to be securely soldered. These cans were found to contain weevils. The commanding officer of the station of Concepcion, First Lieut. Charles B. Clark, Sixth Infantry, informed me that the canned flour contained more weevils than any other kind of flour. It is recommended that more solder be used and that more care be used in putting on the solder.

There has apparently been a large overstocking of the subsistence storehouses at the various stations, and it is also apparent that the stores on hand the longest are not always used first. This is evident from the fact that large amounts of stores are submitted to the inspector in which the cans are almost entirely destroyed by rust, and the contents dried up and disappeared, the stores having apparently been on hand for years. If the stores on hand longest had been used first, the condition of these stores would have been discovered months ago, and before the cans had rusted to pieces.

The storehouse at Iloilo is a large and comparatively cool building, where stores can be better preserved than in the small houses and nipa shacks used at outside stations. There are frequent visits by steamer to nearly all stations, and there is no necessity for keeping large stocks on hand, as this system is sure to result in loss to the United States.

The amount of subsistence stores condemned in the brigade during the fiscal year is valued at \$33,943.64. The articles which show the greatest loss are tobacco, both smoking and chewing, cigars, cranberry sauce, milk, flour, potatoes, onions, tomatoes, bacon, soups, ginger ale, and Shasta water.

Colonel Burton (Cuba) says:

As a general rule the commissary storehouses have presented a commendable state of good order, cleanliness, and classification of supplies. The stores have been generally satisfactory. There was a large lot of supplies sent to Cuba with the army of intervention, which gradually became surplus as troops were removed, and which became the subject of criticism because of age and consequent deterioration. They, however, have been sold, in the general break-up, at very remunerative prices.

Maj. Fred A. Smith (South Philippines) says:

*Subsistence Department.*—This department is justly entitled to praise for the demands made upon it and the manner in which it has met them, using every endeavor to promote the comfort and welfare of men and officers at remote and lonely stations and in the field.

The full ration has been at all times available, except fresh meat and vegetables, which have been supplied as far as the limited and irregular transportation and distance from the supply depots has permitted. Where there is no means of preserving same at stations, the supply is limited to what can be utilized within about twenty-four hours.

Disease (rinderpest) and a lack of any systematic attempt to breed cattle has depleted the islands of native cattle so that the supply is quite wholly dependent upon imported refrigerated meat.

\* \* \* The ration as now constituted seems to be satisfactory and suited to climatic conditions, and the list of sales stores sufficiently varied and complete to meet the general demand.

These islands furnish nothing which can be substituted for the improvement of the regular ration, not even fruit, except it might be the banana. \* \* \*

To prevent deterioration, subsistence stores should not be accumulated in depots in large quantities and supplied to stations for reasonably short periods, so as not to be injured by long storage, getting wet, mildewed, etc., as the facilities for storage at stations is generally limited and conducive to deterioration by dampness, from which cans rust and contents spoil.

Flour shipped in sacks suffers from becoming wet and caked and sacks torn and broken. That shipped in tins has given good satisfaction. \* \* \*

Sauerkraut is an article much desired by the companies. The desiccated potatoes furnished are an undesirable substitute for the fresh article, and are not relished by the men; also the codfish furnished, in its present form, does not seem to be desired.

I know of no good reason why an arrangement could not be made to furnish fresh fish by purchase from the natives in certain proportion in lieu of the meat component of the ration, as almost without exception fresh fish and rice comprise the diet of the natives at all coast towns.

The canned salmon is quite universally condemned as an undesirable portion of the ration.

Major Irons (Colorado) says:

Very little complaint has been made of the quality of stores supplied to the various posts. At Fort Mackenzie, Wyo., California canned fruits, etc., were being shipped from Omaha, Nebr. This seems to be an unnecessary waste of money, as these supplies had been shipped from California to Omaha and then sent to Fort Mackenzie, Wyo., instead of being sent direct from California to post, which is on a direct road from California, viz, the Union Pacific Railroad and the Burlington Railroad. This extra cost, if any, falls on the Quartermaster's Department and not on the Subsistence Department. Much complaint was heard from company commanders about the issue of soup one day in ten as part of the beef component. Much justice appears in this complaint, as soups are easily made from bones of fresh beef, etc., without any extra expense. The issue of soup practically loses to the company the value of this beef component.

The following was reported as the approximate cost of the ration in the various departments. There were no reports from the Philippine Islands on this subject, save the one from the Fourth Separate Brigade. As no general data or method was furnished, some difference in individual judgment may be recognized and the result accepted with a grain of salt.

Approximate cost of the ration.

*Approximate cost of ration.*

Department.	Highest.		Lowest.		Average approximate cost.
	Post.	Approximate cost.	Post.	Approximate cost.	
California .....	Discharge Camp, Angel Island, Cal.	<i>Cents.</i> 18½	Alcatraz Island, Cal ..	<i>Cents.</i> 14½	<i>Cents.</i> 16½
Colorado .....	United States general hospital, Fort Bayard, N. Mex.	26	Fort D.A. Russell, Wyo	14	17½
Columbia .....	Fort Gibbon, Alaska .....	62¾	Boise Barracks, Idaho	14	24
Cuba .....	Holguin, Cuba .....	29	Manzanillo, Cuba .....	24	24
Dakota .....	Fort Assinniboine, Mont.	24	Fort Meade, S. Dak .....	14½	18
East .....	Fort Constitution, N. H., and Fort Dupont, Del.	25	Fort Williams, Me....	13	18½
Lakes .....	Fort Brady, Mich .....	17	Fort Sheridan, Ill .....	13¾	16.4
Missouri .....	Fort Robinson, Nebr .....	20	Fort Crook, Nebr .....	10½	17½
Texas .....	Camp Eagle Pass, Tex .....	20½	Fort Sam Houston, Tex.	13¾	17½
Fourth Separate Brigade.	Atimonan and Paracale, P. I.	25	Nueva Caceres, P. I ..	21	22½

For the whole Army, so far as reported, the highest cost of a ration was 62¾ cents, at Fort Gibbon, Alaska; the lowest was 10½ cents, at Fort Crook, Nebr. The highest average was 24 cents, in the Department of Columbia; the lowest was 16½ cents, in the Department of the Lakes, to which California was a close second with 16½ cents; the general average for the whole Army was 18¾ cents.

A general officer intimated that everything in the Philippines might be held to cost about 50 cents a pound. But if the "approximate cost of ration" is only its cost to the Subsistence Department, the items of transportation, storage, and handling may not appear so pertinent.

In this connection the question of the desirability of having all flour and bacon for use in the Philippines put up in tin cans arises. There is no doubt that canned flour and bacon will suffer a much smaller percentage of loss in transportation, and is less subject to the climatic ravages of that hot, moist climate. The cost of flour in tins is greater than of that in sacks, and the purchase of the latter would, at first glance, appear to be more economical, even if the losses were much greater than they now are; but the great cost of transportation from the place of purchase in the United States to the point in the Philippines where it finally reaches the soldier is many times greater than the original cost of the flour, and when it is delivered in a condition unfit for use the price of the flour is but a small fraction of the loss sustained by the Government.

If well tinned and boxed the loss of flour and bacon would be reduced practically to zero, and the increased cost for this tinning and boxing would be saved many times to the appropriations for the transportation of the Army.

An item or two concerning several depots have local interest at least among the soldiers they supply.

Ventilation of the various floors of the rented store-house was unsatisfactory. Major Hoskins, who made the annual inspection of this depot, remarks:

Subsistence depot,  
New York, N. Y.

The painstaking care with which the interests of the Government are guarded—the reassignment of surplus stores turned in, with a view to their preservation and reissue, and the refurbishing of tools and commissary property which in many instances in the past have been cast aside as unserviceable—is most commendable and worthy of note. Sound business methods control in the operations of the depot, and

it was a pleasure to note that a number of meritorious retired and ex-soldiers were employed, rendering valuable services and manifesting much interest and care in the thorough performance of their duties. The depot officer was emphatic in his praise of their fidelity.

The depot commissary remarks:

The components of the bread ration, fruit ration, and canned fruits are more reasonable here than in any other part of the United States. Fresh meat costs less than in large cities of the East, and fresh vegetables less than in most localities.

Lieutenant-Colonel Chamberlain, who made the annual inspection of this depot, says:

During my inspection of posts in this department I have made careful inquiry, and the universal verdict has been that subsistence supplies were of excellent quality and that requisitions had been promptly filled.

The system of providing refrigerated beef from Manila has proven quite successful. Percentage of loss on entire amount of fresh beef and mutton received during fiscal year, 5½ per cent; fresh vegetables, 6½ per cent. The storehouse for canned goods is surrounded by swampy ground and is inconvenient of access. It should be floored if a more suitable building can not be secured. The zeal and great improvement in the arrangement, care and methods, both for economy and prompt and energetic supply, are very noticeable.

Cranberry sauce in tins shows the greatest loss. There was less than a month's supply of ration articles on hand at the time of inspection on account of a large emergency issue that had just been sent into the field.

The supplies were too widely scattered, being stored in nine different places. The need of a large storehouse was apparent if the supply depot is to be continued in this town. A four months' supply is kept at the depot. Average business per month: Issue, 46,206 rations; sales, \$5,802.25. Under authority contained in letter from the Commissary-General, dated June 9, 1899, sales are made to the Navy averaging \$1,192.84 per month. Fresh beef was being obtained at the station, the source of supply being native cattle of rather poor quality, for which 8½ cents per pound net was being paid. The articles showing the greatest loss were cranberry sauce, Viking milk, and Australian milk. This milk has been also among the greatest comforts to the men.

The condition of the depot was excellent and had wonderfully improved since the preceding inspection.

A four months' supply of ration articles is kept on hand. Canned fruits show greatest loss. Fresh meat was regularly received from the main depot at Manila, except for a short time, when there was a break in the railway.

Major Frank West, who made the annual inspection of this depot on April 3, 1902, remarks:

There are in the depot commissary the following articles of subsistence stores: 2,326 pounds of John Doe smoking tobacco, valued at 47 cents per pound; and I am informed by the chief commissary that there is no sale for the tobacco whatever and that there is probably an equal amount in the post commissary storehouses of this brigade.

The Lorillard tobacco has long been the favorite with the Army, and the periodical attempts to sell other brands to the soldiers cause discomfort, as this is their only luxury, and the purchase of tobacco is specifically allowed them by law. Of course much of this may be worked off.

The storehouses are ample in capacity and were very clean and dry and the stores well arranged. A three months' supply is kept on hand. Fresh meat is received from Manila on an average of twice a month, four or five days' issue being received at one time. Jelly, chiefly because of its age, shows greatest loss.

Native beef is purchased when possible; generally comes from Borneo. Refrigerated beef is received from beef ships going to Manila from Australia. Of the beef cattle only 1 died out of 67, and there was no loss on refrigerated beef. It is eat up as quickly as possible when it arrives at outside stations. Fresh vegetables, honey, and pineapples show greatest loss. The average loss on fresh vegetables was 7 per cent. A three months' supply of stores is kept on hand. The commissary officer seemed far from well, but was performing his duties with soldierly enthusiasm.

On September 1, 1901, the commissary depots of the Departments of Northern and Southern Luzon were discontinued and the stores transferred to this depot, thus adding largely to the duties devolving on the depot commissary. The revolution which has occurred in the management of this depot and the remarkable improvement which has been effected in the spirit and methods of its business under Major B. K. West, necessarily attracted widespread attention; but not more than it deserved. How perfectly these and similar storehouses are working now is naturally gratifying to all who feel interested in the good conduct of the public business. The greatest needs of the depot at the time of my inspection seemed to be suitable and adequate warehouses and better means of transportation for fresh meat, vegetables, and ice. To meet these wants the depot commissary recommended that suitable ground be acquired at a location where ships can load and unload directly at dock, with suitable and adequate warehouses built thereon, and that boats of draft not exceeding 7 feet, and of 600 to 800 tons capacity, with refrigerating plant capable of carrying 60,000 pounds of fresh meat, be provided. Although it did not appear from the depot commissary's report of supplies remaining on hand December 31, 1901, that the stock was then excessive for a command of 40,000 men, except in very few articles, it seems from the report of an inspection of the depot made by Colonel Sanger June 10, 1902, that a large surplus had accumulated toward the close of the fiscal year. Water is one of the fatalities of the tropics; but the bottled and unboxed table waters were being piled in alley and room so high that the pyramid of baled hay in the land transportation grounds, or coal for water transportation was remembered as easily much higher. The command was in course of reduction to less than 20,000 soldiers. The following extracts are from his report:

There has been no deficiency in supplies during the year, and there is a large surplus on hand, as in the other depots which, under orders recently issued, will be shipped to the States. Although a considerable reduction has been made during the year in the quantities of sales stores on hand, there is still more than can be conveniently cared for, and in some of the warehouses the boxes are piled from the floor nearly to the roof. The amount of regular supplies (rations) on hand is sufficient for three months for the entire division, viz, 25,957,764 pounds.

With but very few exceptions the quality of the supplies has been excellent, and of all canned articles of food beef stew is probably the most acceptable to the troops.

To those who have been quartered in places to which it has been impracticable to forward a regular supply of fresh meat and vegetables it has been most acceptable, but this may be said of all other stations.

It has been suggested by the depot commissary in this connection that one of the greatest needs of the commissary service is two or more light-draft steamers with ice plant, and arranged especially for the delivery of fresh meat and vegetables. There is no question but that this would not only add greatly to the comfort and health of the officers and men, but would reduce the expenditures on this account, as a glance at the losses in fresh meat and vegetables, due to deterioration en route, will show.

The greatest care at the depot is observed in handling these stores. All fresh meat is kept in cold storage and either transferred to cold-storage rooms on transports or carefully packed in ice. Fresh vegetables are picked over as soon as received, crated and shipped at once, so that were more speedy delivery possible the losses from climatic causes would be small. But vessels are frequently delayed or diverted from their courses long enough to cause the loss of all the vegetables on board, and possibly the meat, thus leaving the troops for which they were intended without these highly appreciated articles. \* \* \*

This depot is in excellent order throughout, but more storage room is indispensable to the proper care of the stores. Many piles of boxes are still dangerously high, rendering a compliance with paragraph 1357, Army Regulations, impracticable and causing large losses from deterioration. Therefore, unless there is an immediate prospect of the removal of the depot to the left bank of the Pasig, below the Bridge of Spain, it is recommended that the repairs and improvements on the Cuartel de Fortin suggested by the depot commissary some time ago be made without delay, and that all civilians now occupying the Cuartel not connected with the subsistence department be removed. This will add the requisite amount of floor space to the depot and will enable the depot commissary to release warehouse No. 2, for which the chief quartermaster is now paying a monthly rental of \$750 gold.

It would seem a pity if the improvement of the harbor does not afford an opportunity to locate the army stores spaciouly near the shipping. If tunnels under the river Pasig are constructed, as in Chicago, the accessibility will be greatly increased.

The Cuartel del Fortin, used for the subsistence sales depot, is conveniently situated on the Pasig River, and its nearness to the cold-storage plant gives it great advantage also. Between 5,000 and 6,000 authorized officers, enlisted men, and civilians are supplied from this depot. Civilian employees of the War Department, members of Coast and Geodetic Survey, and inter-island transports are required to pay 10 per cent in addition to cost price. Commissary privileges have been granted to 1,679 civilians. Great watchfulness is exercised to prevent barter and sale of stores by purchasers. As illustrative of the improvements effected during the year, it is reported that loss by deterioration, which was \$7,499.72 for ten months of the fiscal year 1901, was \$2,866.03 for the entire fiscal year 1902; and missing articles for the same periods were \$1,741.97 and \$92.60, respectively. During the fiscal year 1902 loss by condemnation was three-fifths of 1 per cent, and by "missing" two hundredths of 1 per cent of value of goods handled. The total cost of maintaining the depot during the year was reported to be about 5½ per cent of the value of stores handled, and as indicating a sound state of affairs, as commercial firms in Manila, it is said, usually allow more for the expenses of their business.

#### MEDICAL DEPARTMENT.

For the posts within the limits of departments having headquarters in the United States the reports show that the sick are properly cared for; the health of the commands is good; medical supplies are of good quality and sufficient, and the regulations for their care and use very fully complied with; the detachments of the Hospital Corps at the

various posts appear to be well instructed, and the sanitary conditions of the posts vary from fair to excellent; at only eight posts was a rating below good reported.

The post hospitals are reported in excellent or good order and well administered. They are generally in good condition as to repair, and of sufficient capacity. Two posts needed new hospitals and thirteen hospitals were of insufficient capacity, while five needed operating rooms. Improvements, repairs, etc., were in progress at a number of hospitals and new ones were being constructed at three posts.

The affairs of the medical department in the Division of the Philippines are reported to be in a very satisfactory condition.

**Dental surgeons.** Colonel Sanger reports that the dental surgeons have rendered valuable services and that the establishment of this branch of the medical department has proven a great boon to the army there. He suggests that all officers and enlisted men ordered to the Philippines have their teeth examined before leaving the States, as decay of teeth is greatly accelerated in the islands. The dental surgeons state that the work is excessive, and they are driven to temporary expedients, as the excessive requirements must be met somehow and permanent work done later, if possible.

The following items are submitted in connection with the islands:

**Personnel.** In the Division of the Philippines, which is the only military division now existing, the Medical and Hospital Corps are serving at practically all posts occupied by troops; but not infrequently it has been necessary for one medical officer to attend more than one station. In these cases the medical officer is located at the most important of the two or more stations for which he is responsible for medical attendance, and a noncommissioned officer or reliable private, with sufficient knowledge of medicine and surgery to perform some emergency work, is detailed at each of the substations. As a rule, troops going into the field are accompanied by medical officers. This is always practicable when the force sent out consists of a large number of men, but sufficient surgeons are not available for small detachments on short expeditions. The smaller detachments are frequently accompanied by one or more members of the Hospital Corps. These arrangements are reported to be satisfactory and the best that are practicable under the circumstances.

The monthly average number of medical officers in the division for the first half of the calendar year 1901 was 490, and for the second half 444, and Hospital Corps men 2,653 and 2,399, respectively, showing a decrease in the medical personnel of 9.38 per cent for officers and 9.57 per cent for men. The monthly average strength of the command for these same half-yearly periods is reported as 56,982 and 44,886, respectively, showing a decrease of 21.23 per cent. It thus appears that the decrease in medical personnel has not kept pace with the decrease in troops. Medical officers are, and have been, stationed at a number of small posts, where they have little to do, for the reason that it is considered impossible to furnish proper medical attendance from other stations in case of emergency. The concentration of commands and abandonment of posts now in progress will in time remedy this and permit of further reductions in the number of surgeons and Hospital Corps men. But in nothing is a liberal allowance more conducive to contentment to a well-provided command upon the march, than the admirable personal and professional character



habitual in our Medical Corps which makes their presence beneficial in every command. In our cities other doctors are handy, but at the farthest front it is army doctors or none for the injured or sick.

Hospitals. Buildings of various character, principally dwelling houses, used for improvised hospitals have been in some cases moderately well adapted for the purpose, though the requirements of modern medicine and surgery are such that utilization of such houses should only be a temporary expedient, and when permanent posts are built, hospitals adapted to the climate should be constructed. Many of the station hospitals are of the nipa shack variety, furnishing some protection against sun and rain, often in bad repair, devoid of sanitary requirements, and without piped flowing water or sewerage. Santa Mesa Hospital, built of nipa, served a useful purpose, but after two years was abandoned; having become uninhabitable from destruction by storms. The First Reserve, No. 3, and Convalescent, at Corregidor Island, are hospitals which were built or specially arranged for care of the sick, and give infinitely better satisfaction. The colleges and other buildings converted into base hospitals and illustrated in former annual reports served their purpose creditably and well, and at times superabundantly, perhaps.

Health and sanitation. The following table, compiled from the consolidated sick reports of four hospitals in Manila and eighteen military hospitals in the division, will show the relative prevalence of various diseases:

Diseases.	Monthly average sick.			
	Jan. to June, 1901.		July to Dec., 1901.	
	Number.	Per cent.	Number.	Per cent.
Veneral.....	333	16.80	279	18.70
Malarial fever.....	267	13.47	149	9.97
Dysentery.....	256	12.92	232	15.52
Wounds and injuries.....	233	11.81	140	9.37
Diarrhea.....	140	7.06	120	8.08
Other intestinal diseases.....	57	2.87	47	3.14
Gastric disorders.....	69	3.48	54	3.61
Typhoid fever.....	30	1.51	14	.93
Undetermined.....	137	6.91	101	6.77
Other diseases.....	459	23.17	358	23.96
Total.....	1,981	100	1,494	100

It will be noticed that typhoid fever does not attain the relative importance that it does in the United States, and that malarial fevers and much more dysentery and diarrhea and other intestinal and gastric diseases give a high rate. The latter class of diseases show a considerable increase, while malarial and typhoid fevers are decreased. It is evident that venereal disease has found a number of victims, but the rate from this cause has never approached that of some other armies stationed in the Tropics. Bimonthly examinations of enlisted men have been followed by good results, and the instructions published in Circular No. 10, Headquarters of the Army, March 18, 1902, may induce greater efforts to diminish the vice.

Notwithstanding the decreased number of troops, from 56,982 in the first six months to 44,886 in the last six months of the calendar year 1901, the monthly average of deaths increased from 66 to 76, partly due to the Balangiga massacre. The principal causes of death and their relative order as to number of victims are as follows: Dysentery, killed in action, drowned, typhoid fever, malarial fever, variola, wounds, and tuberculosis.

The necessity for sterilizing water before drinking is now fully understood. The Forbes-Waterhouse sterilizers, distilling plants, and the simple process of boiling furnish potable water at the different posts and stations. On February 1, 1902, the medical department was operating 17 ice machines in the division, which were not only furnishing ice for the sick, but also conducing greatly to the comfort of the garrisons, and are accepted as a preventative of disease as well as a cure and an aid in caring for patients. Considerable difficulty was reported in keeping the machines running at some of the posts, due to lack of proper knowledge on the part of the engineers or operators.

Dry-earth closets are generally used, which are undoubtedly a great improvement on the native pits. The contents, with waste, are buried at a distance from stations or thrown into the sea or tide-water rivers. Unfortunately, practically little or no sanitary work was being done under the civil administration in towns other than Manila, and soldiers are often menaced by the sins committed by their neighbors. It is understood that provincial boards of health have been recently organized and in time will accomplish something, though the standard of medical education in the provinces is hardly such as to expect immediate beneficial results. The chief surgeon of the division remarks:

Except in the matter of contagious diseases the neglect of natives of the disposal of excreta and wastes is most liable to affect the health of commands, as in other matters they may be fairly well protected by the efforts of their own officers. Fortunately, the activity of the nitrifying and denitrifying bacteria is so great that filth thrown upon the ground is almost immediately destroyed. In Manila and the larger towns excreta is received in pits or vaults which are never made tight, as it is not desired to make them contents of filth, but merely temporary receptacles, where only a portion of the more solid matters remain, thus much reducing the expense of cleaning. In the small towns the pigs are the scavengers and do it thoroughly, with undoubted benefit to the troops, but hardly as much to the native population, as they eat the pigs.

Care and transportation of sick. On the railroad between Manila and Dagupan a hospital car was maintained, with bed accommodations, ice, a few simple medicines, and attendance. All the sick from stations adjacent to the railroad were transported on this car to the larger hospitals. Off the railroad the river routes are followed when possible by small boats, cacos, etc., thence by wagon or litter to the hospitals. On the coast, vessels stopping at ports furnish the needed transportation, and the hospital ship *Relief* has also brought sick from the military hospitals and stations on the coast line, but she is no longer in such use. At Dagupan it was found that there were many vacant beds in the base hospital, though the need was felt for them in the regiment. At Santa Cruz the base hospital seemed similarly not fully utilized. At Vigan a similar base hospital took the local sick in, but telegraphed in every case; and there were base hospitals which at once accepted the sick of the nearest garrisons that had no other accommodations. As to the unused hospital conveniences and other matters doubtless what is practicable and wise has been done, and of course the sick were not allowed to suffer unnecessarily, and any appearance of a personnel or plant not fully used, has been duly remedied.

Medical supplies excessive and lacking. The stock of medical supplies on hand at the Manila medical supply depot was apparently excessive, while the reports received from ten of the military hospitals in the division indicated a want by them of some medicines, of which

the following presents an illustration which may have received complete consideration.

Latin.	Ordinary.	Number of the 10 hospitals having none on hand Dec. 31, 1901.	On hand at medical supply depot, Manila, Dec. 31, 1901.	
			Quantity.	Would supply for one year, per standard supply table, Medical Department.
Argentī nitras fusus .....	Fused nitrate of silver.....	5	2,688 bottles.	<i>Mcs.</i> 1,344,000
Cocainæ hydrochloras .....	Muriate of cocaine .....	5	2,025 bottles.	337,500
Hydrargyri chloridum mite .....	Calomel .....	5	4,943 bottles.	1,647,666
Acidum boricum (pulvis) .....	Powdered boric acid .....	4	3,403 bottles.	1,184,000
Cresotum .....	Cresote .....	4	2,755 bottles.	459,166
Ichthyolum .....	Ichthol. ....	4	3,661 bottles.	915,250
Acidum carbolicum .....	Carbolic acid .....	3	18,568 bottles.	3,094,666
Acidum nitricum .....	Nitric acid .....	3	1,109 bottles.	369,666
Aloini pilulæ comp .....	Pill aloin compound .....	3	4,596 bottles.	1,531,666
Belladonnæ emplastrum .....	Belladonna plaster .....	3	5,868 tins....	1,966,000
Camphora .....	Camphor .....	3	1,902 bottles.	475,500
Morphinæ sulphus (8 mgm. tab.) .....	Morphine sulphate .....	3	7,812 bottles.	609,338

It may be that in reducing the command some articles can be disposed of at fair prices, as horses were in Cuba, rather than returned to America.

The chief surgeon of the division gives the approximate value of medical supplies expended by troops in the division as follows:

Per capita cost of medical supplies.

For six months ended June 30, 1901 .....	\$133,569
For six months ended December 31, 1901 .....	98,091

Dividing these figures by the average strength of the command for these two half-yearly periods (56,982 and 44,886) will give quotients of \$2.34 and \$2.18, respectively, or a per capita cost of \$4.52 per annum. The expense and care of transportation and preservation, and importance of proper use, is doubtless out of all proportion to original outlay.

Care and preservation of medical property. Metal rapidly erodes by rust in the islands, and all instruments need protection from moisture. Bedding and woodwork are frequently destroyed by ants. The lack of repair shops is a feature that requires consideration.

Surg. P. C. Fauntleroy, former medical supply officer, Department of Northern Luzon, recommends that hard-rubber bottles or receptacles be substituted for the metal screw-top bottles and receptacles in all cases and chests: that tin receptacles be heavily shellaced; that glass stoppers be substituted for corks in bottles of certain medicines, such as compound spirits of ether, spirits of nitric ether, aromatic spirits of ammonia, etc., and that all chests, bookcases, etc., be provided with legs about 6 inches high to stand in tin vessels holding coal oil to prevent ants and other insects from attacking the property. He suggests that valuable articles should be kept in air-tight chests or cupboards with saucers of calcium chloride or sulphuric acid, and that instruments can be well protected by coating with the residue from tincture benzoin compound, which is easily removed by rinsing in alcohol. It is understood the National Museum has tried methods of securing air-tight shelving, such as a zinc and groove rabbet for the middle line of sliding sash.

**Beri-beri.**

Such diseases as leprosy, bubonic plague, and cholera, which are or have been prevalent in these islands, are familiar to us in name at least; but others, like beri-beri, seem to be somewhat more unfamiliar. It is evident from several occurrences called to my attention that an epidemic of beri-beri sometimes appears among native prisoners when confined on the ground floor on a rice diet. I have seen cases of it among our officers and in well-to-do native families. It prevailed extensively in the military prisons at Lingayen and Iba in the latter part of 1900, and appeared at the San Isidro military prison in August, 1901. It was also mentioned at San Fernando de Union, Vigan, and Laoag. At Iba (where there were on January 21, 1902, 7 prisoners remaining in the prison hospital with this disease) out of 129 cases 71, or 55 per cent, died; and the mortality among 60 cases at the San Isidro military prison was about one-third. It is believed that the situation as to beri-beri has attracted attention, so that the proper remedy or protection has been more assured, which is of special importance in view of the number and character of arrests effected.

**Cholera.**

At the first official intimation of the appearance of cholera in the Philippines attention was invited to the special danger of sending organizations there without previous tropical experience. How easily carelessness or recklessness introduces death broadcast into inexperienced commands (when even the most dutiful also incur the results) may not be easily appreciated. At that time no soldier had died of this disease, and at first each death could be traced to its source. A careful officer taking a bath in the river instinctively swallowed a mouthful of water. A careless soldier straggled behind his command and ate and drank what was handy among the natives, and died. Naturally green and fresh food and unboiled water is tabooed; but for a while the number of deaths from the disease was gradually increasing and spreading. Its fell steps will be steadfastly contested by the Medical Corps. The country may not give it the attention and sympathy it once would, until it is knocking at our doors. Now the season of tornadoes is passing. If not swept away into the sea then, will it hang on till the next? The epidemics among men and beasts have been remarkable since our advent into the Far East. But they come and go like waves, making but little impression upon the national consciousness; for science has seized the recurrent waves and almost obliterated them. Even the bubonic plague has passed, scarce noted. And the struggle still goes on. A single sentinel of science remiss may let many suffer. But no epidemic has recently broken over our continent, and where our soldiers are face to face with it they face it as is expected of them; and at home there is more than interest in the experience they undergo: though the sentiment it arouses may be narrowed to those who lose loved ones and they who most sympathize with them.

Perhaps nothing is more impressive among the novelties of tropical service than the unaccustomed diseases and sores; and the imagination is not more impressed by even the loneliness of being on the wrong side of the sea and amid secretive semi-civilized Malays and poisoned spring traps or weird natural forms of life and death, and the dank heat and tornadoes, with such unfamiliar extremes as lilliputians and volcanoes. Even the names, like elephantiasis, do not seem nice; and many more know than mention dhobie itch. That fatalities among people and animals appear so much more numerous among the natives

than our men speaks well for the discipline and attentive care of the men and the superior zeal, skill, and determined ability of our medical corps. The carabao and cattle have been nearly decimated, until the need, at least in cities, for mechanical transportation naturally grows in importance, and wireless telegraphy is broached inopportunistically as a possible relief for the courier's horse or the anxious wife arriving at last from the burdened sea. The comparative absence of typhoid with its *subcutis tendinum* or pernicious malaria in its hæmaturia stage perhaps ought to be some relief or balance for the new forms of diseases. It may be difficult for those who are overstrained by their daily task in jungle, swamp or mountain stream, to find contentment or any possibility of rare gratification in the great destiny in prospect for the Philippines: though the novelty of it, and the whirl and spirit of new birth in the air can not be easily quelled, and bears a promise and potency of great times both for itself and for all the teeming East. Some must see indeed the stir upon the face of the waters, however any part of the spirit or methods of American institutions are transplanted there.

Medical supply depots. These depots were reported to be in excellent condition, and, with the exception of inferior peptone at the Manila depot, or inert quinine, the supplies were of good quality. Excessive supplies were noted at the Manila depot, and on July 16, 1902, the storerooms were reported to be largely overstocked, hospital property being piled on the porches. The surplus was then about to be shipped to the United States, but as the reduction of stations and troops in the Philippines was still in progress it was expected that the amount to be shipped would soon be replaced. Excessive supplies were also reported at the Cebu depot. The floors of the New York depot were also reported to be overloaded on account of the influx of returned surplus property. A great improvement has been reported in regard to losses in transit—very few articles having been lost during the year, although formerly there were many.

Medical supply depot, New York, N. Y. The floors were loaded with stores beyond the limit authorized by law, due to the accumulation of property returned as a surplus from Cuba, Porto Rico, and the Philippines. It was the intention of the medical officer in charge to submit much of the superfluous stock for the action of an inspector in the near future.

Medical supply depot, San Francisco, Cal. Lieutenant-Colonel Chamberlain, who made the annual inspection of this depot, remarks:

It is recommended by the surgeon in charge that ice machines for the Philippine Islands be provided with boilers of the marine type (i. e., with manhole in center), so as to be easily cleaned; he also recommends that the feed pumps be of larger capacity. These improvements he believes to be called for "by the hard conditions of the water supply in most parts of the Philippine Islands."

Medical supply depot, Washington, D. C. The heaviest article of the field equipment furnished from this depot, the 100-men mess chest, weighs 325 pounds; the lightest, the Maignen filter, 30 pounds. The average weight of a regimental set is 132 pounds per item. It is the intention to keep on hand a sufficient supply to meet the first requirements of five army corps for three months.

Medical supply depot, Manila, P. I. The floor of storehouse No. 5 of this depot is below the level of the river and is liable to be submerged during heavy typhoons. In connection with my Philippine tour attention was especially drawn to the large surplus of

medical supplies at this depot resulting from the reduction of the number of sub-depots, stations, and troops and from other causes, and in a report dated July 16, 1902, Col. J. P. Sanger, inspector-general, remarks on this subject as follows:

All the storehouses are largely overstocked at present, and 20,000 cubic feet of hospital property is on the porches, but when the shipment of surplus property about to be made takes place there will be ample floor space and all supplies can be better administered than is now practicable. The surplus to be shipped to the United States, however, will soon be replaced, as the reduction in the number of posts and troops continues. The quality of the supplies is reported good, except peptone, which does not give red cholera reaction, and none of the stores are considered unfit for use.

The reports show that these institutions were generally in excellent condition. The First Reserve at Manila was badly in need of repairs; there was no operating room in the hospital at Honolulu, and the conditions at the general hospital at Washington Barracks, D. C., were such as to suggest to the inspector a recommendation that steps should be taken to procure a site elsewhere and erect thereon a general hospital, hospital corps barracks, and other necessary buildings, and that the present hospital be turned over exclusively for use of the command at Washington Barracks. In administration, instruction of the Hospital Corps, and care and use of property and medicines, the law, regulations, and orders, with very few exceptions, appear to be complied with. The total bed capacity of the nine hospitals at time of inspection was 1,894, and the number of patients was 1,031. The average cost of maintenance of hospitals per patient per day is given, for the Presidio, \$1.23; First Reserve, Manila, \$1.85; Number Three, Manila, \$1.58; and Corregidor, \$1.25.

The buildings, which were in fair to excellent condition, embrace 26 frame, 14 adobe, 9 brick, 1 iron, and 1 stone—a total of 51—exclusive of a steel and glass recreation hall and a building for the ice plant, which were being constructed at a cost of \$11,264.40 and \$1,700, respectively. An addition to the infirmary and a chapel were badly needed. A hay shed, built in 1894, was wrecked in a heavy wind storm during the inspector's visit. The sewerage system has been improved and the capacity of the ice machine doubled during the year. Between June 23, 1901, and March 8, 1902, 527 patients were treated. Of these, 245 were beneficiaries of the Soldiers' Home, Washington, D. C., of whom 100 were discharged from the hospital, 21 died, and there were 124 in hospital at time of inspection. The hospital has a capacity for 250 beds. Five messes, all well managed, are maintained.

Major Irons, who made the annual inspection of this hospital, submits the following suggestions and remarks:

This hospital, including buildings and grounds, should be lighted by electricity, for the reason that it is more economical, healthy, and provides a better light. Silver City, distant 9 miles, is lighted by electricity, certainly a good indication of its economy. When the cost of mineral oil, with transportation of same, lamps, fixtures, calcimining, and labor for same is considered in connection with the fact that an engine and boilers already exist at the post, it appears that there certainly would, in course of a short time, be a great saving to the Government. The plea that electric lighting is in its infancy seems to be far-fetched.

Paragraph 1621, Army Regulations (1901), mentions certain regulations for this hospital. They have not as yet been promulgated, and Major Appel is applying Army Regulations as far as possible and changing them to suit existing conditions.

Many of the patients have sums of money and request the commanding officer to take charge of it. The total amounts to quite a large sum. Major Appel induces many of the patients to place their savings in a savings bank, but many others de-

cline. The care of this money places more or less responsibility on the commanding officer and consumes more or less of his time, but no receipts are taken or given by him. He simply deposits the amounts in his office safe. Major Appel states that he does not consider it burdensome and does not suggest any method or regulation for the control of this matter.

Army and Navy  
General Hospital, Hot  
Springs, Ark. Hospital was in excellent condition throughout. Several improvements were made during the year. A refrigerator plant was in process of installation, at a cost of \$2,500.

Between March 25, 1901, and May 24, 1902, 430 patients were treated.

The bed capacity of the hospital is 122, and there were 39 vacant beds at time of inspection.

General hospital,  
Presidio of San Fran-  
cisco, Cal. Hospital was in a highly satisfactory condition. The total bed capacity is 520. Wooden barracks, occupied as dormitories by the hospital corps, were reported as unsanitary. Expenditures for the period from July 1, 1901, to June 10, 1902, on account of construction and repair of hospital buildings, including new chapel, reading room, commanding officer's quarters, and a double set of officers' quarters, amounted to \$85,907.33. During the same period 4,357 patients were treated, and the cost of maintaining the hospital was \$166,207.06, being an average daily cost per patient of \$1.23, as reported by the commanding officer.

Attention is invited to the following remarks and recommendations of Lieutenant-Colonel Chamberlain, who made the annual inspection of this hospital:

The soldier's ration, while ample in quantity and suitable in quality for men in good health engaged in an active life, is, I believe, wholly unsuitable for female nurses. In order that they may have suitable food it is necessary that they personally spend a considerable amount each month. This appears to be unjust and it is strongly recommended that in addition to the regular ration each female nurse be allowed 15 cents per diem for subsistence, or, better still, that each nurse be allowed 30 cents per diem for subsistence in lieu of the ration in kind.

It is also recommended that suitable provisions be made for such nurses as may become disabled in service.

Their duties are of such a peculiar and important nature that nothing should be left undone by the Government to make their lot a desirable and happy one. \* \* \*

The commanding officer considers that the allowance made by the Quartermaster Department, \$30, for newspapers and periodicals, is insufficient, and requests that this amount be increased to \$40. I concur in this recommendation, as a large percentage of the patients are able to read and have little else with which to occupy themselves. The reading matter should be ample. \* \* \*

The necessity for maintaining, in connection with the general hospital, a quartermaster and commissary, especially the latter, is not apparent. It is believed that subsistence supplies could be secured from the subsistence department of the post and thereby avoid the necessity of maintaining a separate establishment. The commissary at the post should be authorized to issue rations upon the order of the commanding officer of the general hospital, thereby avoiding the necessity of sending such papers through post headquarters.

General Hospital,  
Washington, D. C. The hospital buildings, 9 in number, were in fair or good condition. The bed capacity is, for officers, 10; for enlisted men, 40. The accommodations for officers were reported to be too limited for the requirements, and facilities for amusement of patients were lacking for want of sufficient room. Storerooms were insufficient and unsuitable. There were 893 patients treated during the year, and the cost of maintaining the hospital was \$5,071.08.

The instruction company of the Hospital Corps attached to this hospital was found in very good condition as regards military appear-

ance, dress, and equipments, and the drills were well executed and showed careful attention and training. About thirty hours per week are devoted to theoretical and practical instruction. The outline of course of instruction is as follows:

First month: Anatomy and physiology, bandaging, diet cooking, bearer drill, calisthenics, and company drill.

Second month: Nursing, first aid, care of animals, bearer drill, calisthenics, and company drill.

Third month: First aid, elementary hygiene, clerical work, materia medica, bearer drill, practical field work, calisthenics, and company drill.

Fourth month: Clerical work, pharmacy, materia medica, practical field exercises, calisthenics, and company drill.

This hospital is built on ground leased by the United States at \$175 per month. It is used both as a post hospital for Camp McKinley and a general hospital for enlisted men arriving on transports and for enlisted men of the Navy. It has one ward containing 30 beds, but is not provided with an operating room or laboratory, although the necessary instruments and appliances for these purposes are on hand. As this is a strategical point, isolated from our continent by 2,000 miles, but in touch with many points, like the hub of a wheel, provision is needed in this broader view, when permanently located, which may possibly be near Pearl Harbor, as it gradually becomes the center some maintain it deserves to be.

The following remarks are taken from the report of my inspection of this hospital dated September 3, 1901:

During August, 1900, the hospital was changed from its original location on account of the owner desiring to build, but hardly shows the former use of the material, although those in charge are quite conscious of it and find some difficulty in keeping the appearance quite as it was before; but it is well run in every way and has doubtless been of the first importance during the active operations at the Philippines. The number of sick range from 7 to 70; at present there are 18 men in the hospital, being from the local command and passing transports, principally those going west. The sickest men received at the hospital were the 12 men taken from the Warren January 23, 1901, four of whom died, the diseases being amœbic dysentery and tuberculosis. Naturally those stopping here from the Philippines would be apt to be quite sick. There have been no deaths from the local command nor a single case of typhoid fever.

The location of the hospital is 240 feet above the sea level and is regarded as entirely healthful, though not connected with any sewerage system; therefore the use of cesspools must be resorted to, which are kept emptied all the time by an excavator. The camp, 6 miles away, is almost on the sea level, and the mosquitoes are quite abundant; but malaria, while present, is not excessive, as might well have been anticipated from the surroundings of irrigated land and the brackish water of Kapiolani Park. Being only three-quarters of a mile from the shore, however, the bathing facilities are practically good. \* \* \*

This general hospital, as well as the camp, is upon rented ground, and therefore has all the uncertainties of possession that go with this. The term of the present lease expires July 1, 1902, and every preparation, it is believed, should be made at once to get a permanent location for the care of the sick as well as for the command, and the present method and necessities suggest that, wherever constructed, the opportunity to care for a much larger sick list should be on hand. The present hospital is quite able, by getting tents and tent floors and poles from the Quartermaster's Department, to care for 100 to 150 patients, and this probably could be done as conveniently at a well-located post in the immediate neighborhood as at the present admirable site, which seems to be in the line of growth of the city, being located in the Nuuanu Valley.

This is the most important military hospital in the Philippine Islands. It was first organized by the American Army in June, 1899, and from that time to June 12, 1902, has handled 18,895 patients, or an annual average of

First Reserve hospital Manila, P. I.



6,298. The bed capacity is 300, which in case of necessity can be increased to 350. On May 9, 1902, the condition of the hospital buildings and the improvements needed were reported by Major Arthur, surgeon in charge, as follows:

The buildings are dilapidated, the kitchens old and unsightly, the wards close, hot, and gloomy, with small, barred windows. The heat in these wards is intense, and while nearly all the clerks in the quartermaster's office have electric fans, I can not procure for my patients an electrical day service.

The plumbing of the hospital is very poor and antiquated; the electric wiring has been condemned by the city inspector as dangerous. The answer to all my representations is, "There is no money." The condition of this hospital does not reflect credit on our department.

I have done everything in my power to improve it and have made several changes for the better, but I would urgently recommend an allotment of \$5,000 be allowed to make this hospital presentable and to enable me to properly care for the patients intrusted to my care.

Colonel Sanger, who made the annual inspection of the hospital on June 12, 1902, submits the following remarks and recommendations:

The hospital is very much in need of repairs, some of which are in progress. I have examined into the matter and earnestly recommend that the repairs and alterations asked for by the surgeon in charge be made.

During the past year there have been handled 2,999 patients, and the cost of maintenance has been as follows:

Pay of officers.....	\$13, 956. 63
Pay of enlisted men.....	24, 576. 55
Pay of nurse corps, female.....	16, 209. 90
Pay of seamstresses.....	161. 40
Pay of contract nurses, male.....	875. 50
Pay of civilian employees, Medical Department.....	872. 60
Pay of civilian employees, ice plant.....	813. 02
Clothing of detachment of Hospital Corps.....	1, 365. 72
Pay of employees, Quartermaster's Department.....	5, 181. 07
Value of property condemned, Quartermaster's Department.....	1, 177. 78
Rations of animals, Quartermaster's Department, oats.....	1, 537. 54
Rations of animals, Quartermaster's Department, hay.....	1, 625. 88
Fuel.....	2, 275. 00
Illuminating oil.....	563. 50
Subsistence employees, Quartermaster's Department.....	868. 67
Subsistence, enlisted men.....	24, 290. 71
Laundry bills.....	2, 922. 12
Repair of mattresses.....	560. 00
Medical supplies and hospital property.....	23, 222. 08
Repairs to hospital.....	2, 600. 00
Electric lighting.....	1, 230. 00
Total.....	126, 885. 67

Expressed in terms of one patient, the total number of days lost has been 68,468, making the cost per patient per diem \$1.85, which may be considered reasonable for this climate and place. \* \* \*

With the reduction of the army to 20,000 men, which at the present rate of home shipments will be accomplished in the course of three months, and the departure of the sick who belong to regiments already gone, there will be no necessity for more than one large hospital in Manila. The First Reserve is better located and arranged for that purpose than any other, and, if repaired and otherwise improved as recommended by Surgeon Arthur, will answer all purposes.

When I visited this hospital Civil Governor Taft and General Funston were occupying beds in it undergoing surgical operations, which sufficiently proved the excellent work and results there. But the best means are none too good, as well as results; and if the utmost excellence were attempted perhaps more would be allotted than the \$5,000 asked for by Major Arthur. The surgeon, nurses, and employees justly share in due gradation the commendation the work of the hospital has won:

and it does not stand alone, but other hospitals also deserve most hearty commendation. Whether or no it is more economical for regulars to have regimental surgeons like the volunteer, still in the line of efficiency, which is of the first importance in such matters, such general hospitals silence all questionings. In skill, devotion, and acumen the medical corps never stood higher and its excellence is a credit to the military service.

This hospital was first occupied January 19, 1900, from which date to June 14, 1902, 5,009 patients were admitted for treatment. Its bed capacity is 222. During the past year 1,726 patients were received, and the cost of maintenance was \$74,410.03. "Expressed in terms of a single patient, the number of days lost has been 48,205, and the cost per diem per patient \$1.585." Colonel Sanger, who made the annual inspection of this hospital June 14, 1902, recommended that it be discontinued, and an indorsement on his report shows that it was abandoned by July 3, 1902.

This hospital was established for convalescents in December, 1898, from which date to June 14, 1902, it has handled 5,454 patients. During the past year 1,109 patients were cared for, and the cost of maintenance was \$51,094.38. Expressed in terms of a single patient, the number of days lost was 40,868, making the cost per patient per diem \$1.25. The bed capacity has recently been reduced to 100, and a further reduction to 50 was contemplated. The hospital was in good order and well equipped. The supply of drinking water was reported insufficient in dry weather.

The drift of military operations has been southward, away from this hospital. The sick of the military post was not given admission to it. The bed capacity for patients was reduced from 300 to 250. There were 50 patients at time of inspection, so there was an overabundance of room for the sick. The drinking water was reported to be poor and scanty, and a driven well was much needed.

#### PAY DEPARTMENT.

For the prompt payment of the troops in the Philippines, the energy and determination of the officers of the Pay Department to overcome all obstacles in the performance of the duty assigned them must be acknowledged. In the earlier days when the troops there were just pushing into the interior, where transportation was scarce and only carabao and carts were possible on account of the condition of the roads, through swamps, rice fields, bamboo thickets, and over mountains in an enemy's country, carrying from \$50,000 to \$150,000, with but small escort, the mental and physical strain, as said by one officer, was enough to make white hair. Other officers report that they were obliged to travel in small launches, with no accommodations such as are recognized as necessary for health in all civilized countries, and that for lack of proper facilities landings were accompanied by involuntary baths, wet money, and spoiled papers, and upon return from shore no dry clothes, no cabin, and often so rough that cooking of any kind was an impossibility. These conditions are now improving, the troops are not so scattered, roads have been made, larger escorts are furnished, and transportation is more plentiful, though some of its defects still continue. There seems to be a lack of officers to allow those returned from these exhaustive tours sufficient time in that climate to recuperate.

The security and handling of large amounts of currency have been a source of much solicitude to disbursing officers in the Philippines, and have vastly impeded the work of making payments. The designation of the insular treasury as a public depository will no doubt relieve them from these embarrassments. The faithfulness of the officers, the constant supervision and energetic administration, and the perfect effectiveness of the system in this war as in the civil war afford illustrations how admirably the methods which have developed in our service perfectly suit our needs, and in the due division of labor the best results are attained.

Major Pettit (Seventh Separate Brigade, Philippine Islands) says:

The Navy pays in Mexican money at the official rate, at present, of \$2.35 for \$1. Our men are paid in gold, which they have to exchange for Mexican currency at the rate of 2 for 1, which puts the soldier at a disadvantage in the purchasing power of his money.

The monthly stoppage circular mentions the Auditor and others in connection with the several cases; but it can hardly be desirable in any case to so publish a stoppage though the officer has already paid the amount, or even without express warning that it will be done, nor when the Auditor passes what the War Department bureau suspends. Of course, the fairest possible consideration for all is intended.

The following suggestion of Major Tutherly (Columbia) is concurred in:

I suggest legislation enabling officers, not retired, to deposit their savings with a paymaster in sums not less than \$25, or in any one year not exceeding their pay for that year; for such sums deposited for a period of six months or longer, the officer to be paid interest at the rate of 4 per cent per annum, as now provided for enlisted men. He should have an opportunity and inducements to save his money to provide for his family, and such a system of deposits would, I think, obviate many of the cases of destitution in the families of officers who die in the service.

The Washington authorities and the Congress are not ignorant of the destitution in which reckless courage sometimes leaves those dependent upon the nation's dead. A serious effort to secure adequate provision to meet this, such as General Fry urged for consideration, may now deserve favorable attention.

#### ORDNANCE DEPARTMENT.

The arms and equipments issued by the Ordnance Department are satisfactory; indeed, more, they are generally very commendable and were probably never better suited to their purpose. The usefulness of the bayonet is questioned. The suggestion heard so frequently during my Philippine tour that some troops should be armed with a carbine while on hikes and the possibility of this weapon being given a bayonet, short and sharp, was mentioned to Major Russell at the Manila ordnance depot; and he informed me that the idea of having a rod bayonet was again under consideration, and possibly also some other modification of the length of the rifle. As the enemy is now seldom seen in the islands except when he is caught in or springs from ambush, almost in immediate contact, a bullet or weapon to stop him within 6 feet, at close quarters, seems desired.

Private Carney was compelled to crack the skull of his assailant with his musket, though he had put a bullet through him before being hacked with a bolo, and Lieutenant Connolly had to struggle in the water

with the man who wounded him, in their gallant fight near Soro Soro, Batangas, December 23, 1901, though two pistol bullets had reached him.

The trail of the mountain battery at Pasay seemed quite unwieldy when packed upon animals; and Captain Stone told me that he had already suggested that a hinge about the center of gravity would possibly obviate some of the annoying features while on the pack saddle. Major Russell informs me that such a change was rather beyond their present means at Manila, but the question of an improved pack saddle was under consideration, and the Maxim-Vickers outfit may require modifications, and it is understood the question has been well solved, and the mountain battery in Mindanao is now helping to look after the Moros. The excellent condition and quality of both types of mounted batteries seen in the Philippines deserve notice.

**Ammunition.** It was reported that in some instances defective ammunition had been issued in the Philippines, but that in the main the ordnance stores and their supply have been most satisfactory there.

**Arms and equipments.** The reports received from the Philippines show that the arms and equipments in use there have generally been in fair condition when the service required of them is taken into consideration; though it was stated that the bronzing on rifles, carbines, and revolvers was in many instances worn off, but that the ordnance depot in Manila is prepared to rebronze them in limited quantities and render them again presentable. It was also reported that articles of leather succumb to the climatic conditions of the island more readily than any other article of equipment; and Major Bailey recommends that the quantity of the materials for cleaning and caring for equipments be largely increased.

Major French says:

The carbine rear sight, model 1901, not being provided with a guard, has been frequently injured in pulling it in or drawing it out of the scabbard; besides, the thumb piece at the top is unsatisfactory, and it is thought the sight is too delicate for field service. From what troop commanders report, I believe that a return to the sight previously used would be advisable.

It is also reported that the losses of ordnance property and stores in the Philippines, especially in articles of equipment, have been great.

Colonel Sanger says:

It has been suggested that the D ring on the haversack be made stronger, as the haversack is frequently used to carry cartridges; also that the haversack have a pleat in front like that in the breast pocket of the khaki blouse, so as to increase its capacity when necessary.

The establishment of the tinning plant at the ordnance depot, Manila, will effect a large annual saving in mess tins, cups, etc.

It has become a custom among soldiers to attach the first-aid packet to the cartridge belt, as the most desirable place to carry it, but sometimes it is not well secured, and is lost or becomes unserviceable from exposure. A flap pocket at the back or side of the belt and just below the cartridge loops would no doubt be of great utility.

Maj. Fred A. Smith says:

**Canteen and tin cup.** The form of the present canteen is not believed to be the best adapted for good service; one of a rectangular form, slightly curved on one side so as to fit the form of the body, would enable it to be held in position when placed about the body, while the present rounded shape has a tendency to make it move to different points of the body unless held in position by the cartridge belt, and then its ready use is interfered with. The question of having the rectangular top removable so that in an emergency it could be used to make coffee, and its interior examined and cleaned, might be worthy of consideration. The tin cup is of

an awkward shape to carry, and the noise it makes in striking against the equipments or in climbing or descending the rough steep trails can be heard at some distance. It has been the stand-by of the soldier, but in these days of modern advancement it would seem that some invention either collapsible or to fit over the base or top of the canteen could be devised.

Maj. James S. Pettit (Seventh Separate Brigade) says:

**Arms.** Complaints have been made by officers in the Lake Lanao expedition that the .38 caliber Colt revolver is too light. That it failed to stop Moros unless it struck them in a vital spot. This same complaint was made concerning the .30 caliber United States magazine rifle. The arrangement of the bayonet scabbard is still unsatisfactory. Great numbers of bayonets are lost and scabbards broken and condemned. The magazine rifle has undoubtedly proved itself to be a simple, strong, efficient, and reliable weapon. It is possible that it may fail to stop a man occasionally, but I do not think there is much danger of the failures turning the tide of battle.

The musket has proved its utility as a club against the enemy. Colonel Burton says:

**Gun-carriage brake.** The bowspring brakes now in use on the wheels of gun carriages for light batteries to check recoil are not of sufficient strength to stand the strain of continuous firing. The experience of the light batteries in Cuba is that several have broken under different strains, one at the sixth shot and another at the twentieth. In both cases the material did not appear to be defective, but the fault seems to lie in the light weight of the metal.

Major Reynolds says:

**Arm racks.** I know of no good reason why arm racks should be carried about from station to station. I know of some being carried to the Philippines and back. It would be much better that moving them from their places in barracks be prohibited.

**Arsenals, ordnance, and powder depots.** The reports indicate excellent military and business administration and methods at the arsenals, ordnance depots, and powder depots. The ordnance detachments are properly instructed and efficient and are kept under proper discipline. The messing is excellent and medical attendance satisfactory. The public buildings are generally in good condition, and various improvements have been noted in the inspection reports.

**Frankford Arsenal, Pa.** Attention is invited to the following extract from the report of annual inspection made by Lieut. Col. C. H. Heyl, Inspector-General, May 31, 1902, touching upon the greatest needs of the arsenal:

The commanding officer stated the great increase during the past few years in the quantity of ordnance stores manufactured has rendered the available storage facilities entirely inadequate to the needs of this arsenal. This condition of affairs will be still further emphasized when the artillery-carriage factory now in process of construction is completed and in running order. It is of the utmost importance, therefore, that the storage capacity of this arsenal should at an early date be enlarged by the erection of a storehouse, capacity about 300,000 cubic feet, at an estimated cost of \$32,000.

The plant for the manufacture of shrapnel at this arsenal is capable of turning out about 100 3-inch shrapnel per day. This plant, for lack of other space, is at present located in the cellar of the machine shop. This space is dark, badly ventilated, and inconveniently located. It is incapable of expansion to meet the future requirements of the service, which will involve the manufacture in large quantities of shrapnel of all calibers up to 6 inches. To meet these requirements the artillery-ammunition factory now in process of erection should be enlarged by the addition of a wing of capacity and design adapted to shrapnel manufacture. The estimated cost of this building is \$30,000.

The work of melting and molding alloy slugs, round balls, and bullets must be carried on in the old shop for want of space in the new cartridge factory for this branch

of work. These shops are about 200 yards apart, and without a more rapid and modern means of transportation than now obtains it will be found very inconvenient to have them so far separated; hence the necessity for a new building more conveniently located to the new cartridge factory, equipped with modern appliances and where storage of the supply of metal necessary to be kept on hand may also be provided for. Estimated cost, \$10,000.

**Indianapolis Arsenal, Ind.** This arsenal has been dismantled and nearly all the ordnance material has been shipped to other arsenals preparatory to final abandonment under General Orders, No. 62, Headquarters of the Army, of 1901.

**New York Arsenal, N. Y.** The capacity of the storehouses was reported as hardly large enough for ordinary demands and entirely inadequate for the demands of war.

**Rock Island Arsenal, Ill.** Adverse criticism was confined to the frame hospital building, which was reported to be unfit for hospital purposes and not worth repairing. Commendation is due throughout.

**San Antonio Arsenal, Tex.** Office building too small; main storehouse in poor condition, due to the foundation being defective and having settled; blacksmith shop, an old rotten frame shed, should be replaced by a new one; artillery shed, used for storage of obsolete guns and carriages, is old and dilapidated and liable to fall down; old machine shop, used for power house, is not suitable for the purpose and is entirely too small. The picket fence is old and rotten, and a new one is needed.

**Springfield Armory, Mass.** The shops are excellent, and the storehouses have a large capacity. The machinery and plant are largely new and modern. An addition to the water shops would enable the output to be doubled, so that in case of sudden emergency, by working night and day, a regiment a day could be armed. Those who remember how the output of this institution was prayed for in 1898 will indorse a generous allowance to keep its capacity fully equal to the demands of every emergency. Infantry is the backbone of our volunteer system, and it should never be allowed to want or suffer for the lack of the best weapons known.

**Watertown Arsenal, Mass.** The issues from this arsenal are very heavy, and comprised about 1,000 shipments during the year, embracing about 75,000 items, from a 12-inch disappearing carriage requiring 8 platform cars down to the smallest part of a gun carriage. The United States (Emery) testing machine is located at this arsenal, with a capacity of 1,000,000 pounds, and is in constant use, under skillful direction, not only in the test of material used in Government guns and gun carriages and other constructions, but also in a great variety of tests of structural material for manufacturers and builders throughout the country.

**St. Louis powder depot, Missouri.** A large quantity of saltpeter (2,240,000 pounds) was reported on hand, in regard to which the inspector (Lieutenant-Colonel Mills) made the following suggestion:

I understand the saltpeter is of no use at present, as the manufacture of black powder is suspended. It would seem wise to sell it. Much of it has been in store many years.

**Ordnance proving ground, Sandy Hook, N. J.** Several improvements were made during the year in shops, water and sewerage systems, Gantry crane, installation of boilers, generators, etc. The following

items of appropriation for the proving ground are contained in the fortification act approved June 6, 1902:

Addition to officers' quarters.....	\$11,000
One water tower, with connecting pipes.....	1,600
Storehouse.....	8,000
Barrack.....	40,000
Enlargement of office and instrument house.....	10,000
Chemical laboratory.....	10,000
Structure for tests of powder.....	6,000
Total.....	86,600

At the time of my visit the principal needs of this depot were reported to be, suitable storehouses and the proper lighting and ventilation of those then available, electricity to replace steam as motive power, more shop room, and suitable dock facilities. The commanding officer of the depot submitted the following recommendations, to which attention is invited: That the whole of Fort Santiago be set apart for the depot; that an electric power plant be installed; that the building left unfinished by the Spaniards be completed for office purposes and the present offices be used for shops, and that the dock be reserved for the depot and the river dredged at that point. The influence of this establishment in the past, the excellence of its methods and management in every respect, and its possible importance in the future at such a strategic point deserve and have doubtless received the fullest recognition.

The advancement in technical appliances has not stopped, and much of it centers here, and we must be prepared for the changes imminent in the next two or three decades.

The value of the principal stores on hand at the beginning of the last fiscal year was \$1,697,547.72 and at its close \$1,242,658.85. A considerable quantity of stores was shipped to the United States during the year. There were only a few surplus stores reported on hand June 28, 1902.

#### SIGNAL SERVICE.

During the past year the land and cable lines have not only been at times seriously damaged by typhoons, earthquakes, and other natural causes, but in some places it has been a matter of almost daily occurrence for the insurgents to cut them. All damages have been repaired as promptly as possible by the Signal Corps, so that there has never been any very protracted interference with the communication by wire—say less than a month or fortnight, indeed, seldom so much as a week.

The temporary parts are being constantly more permanently improved where needed. However heartily the admirable work and gallantry of the men and corps can be commended, the great work of the past should not obscure the pressing need of nearly doubling the plant immediately. Twice during about a month, while I was in the southern islands, there was interruption of all communication to Manila of nearly a week—this in the period of active operations. Other illustrations of overpressure or delay would seem to fully prove, or, shall we say, perhaps suggest the need of more and alternate wires and additional first-class operators. The success of all other departments largely depends upon the Signal Service for promptness, especially as the mails are so sluggish. Despite great disadvantages the work was most commendable.

The Signal Corps then operated in the islands 1,325 miles of cable and 5,107 miles of land lines; total, 6,432 miles. There are 185 military telegraph offices and 180 military telephone offices; total, 365 offices. It was said that an average of about 3,000 messages, aggregating 100,000 words, were sent daily, which would, at a charge of 1 cent a word, make \$1,000 gold.

On December 31, 1901, there were 500 Signal Corps men in the Division of the Philippines, who were assisted by about 260 hired natives. The total pay and allowances of the 500 Signal Corps men amounted to \$18,832.83 per month. The service it rendered was worth much more and performed under excessive strain and inconvenience.

During the six months ended December 31, 1901, Signal Corps property to the amount of \$302,885.62 was received, \$224,981.88 issued and shipped, and \$78,903.74 worth remained on hand at the end of the period. During the same period funds were received to the amount of \$25,000, of which \$16,994.42 was disbursed, leaving a balance of \$8,005.58.

It was reported that the cost of cable per knot, delivered in the Philippines, is \$466, and that the character and cost of land lines vary to such a degree that no definite sum can be stated, though a bamboo line can ordinarily be built for \$20 a mile. The line from Manila to Dagupan, 125 miles, carrying six wires and pins for two extra wires, cost about \$125 a mile. The average cost of transmission, it is reported, is three-fourths of a cent a word, and the monthly cash receipts for commercial messages over the military lines is said to be \$5,000.

The chief signal officer of the Division of the Philippines states that the greatest obstacle to the effective and economical working of the corps is the impossibility of procuring telegraph operators in the United States for the Philippine Islands under the present conditions. Of those now there, 164 receive in cash \$21.60 a month and 100 receive \$15.60 per month. The terms of service of 191 signalmen were to expire by July 1, and it has been recommended that 100 additional first-class sergeants be appointed, as some means of increasing the pay of operators must be provided, and this seems to be the most economical and effective way of solving the problem; and enlistments under the present conditions are said to be entirely inadequate. Certainly something should be done, and very promptly, to preserve in the Philippines the organization of this most valuable corps, than which no other organization has rendered more faithful and useful service in that distant land, and without which successful military operations, if they could be accomplished at all, would be quadruply troublesome, vexatious, and expensive. There may be need to remember that where roads and transportation and intercommunication otherwise become more difficult, but also more essential to life and that success for which lives are forfeited under military orders, this fine wire and the twin men alert at either end become of the greatest importance and the center and medium of army interest, and it is believed that it would be wise to almost double the present electrical plant and line in the interest of military success and the saving of soldiers' lives, for the cauldron in the far East is seething and the utmost influence and success are promised to those who are ready to the utmost and constantly.



Cable ship, etc. During my tour there was some talk of partially dismantling the *Burnside* as a cable ship, for which she has been carefully fitted with some pains. The conduct of affairs on this ship, as observed by me—the quartermaster being Capt. George O. Squier, Signal Corps, and the master, Captain Laffin—appeared specially worthy of commendation. Captain Squier is widely known as a scientist in addition to his high professional standing. The sailing master and captain is held in esteem most justly, and possesses the best characteristics and qualities of his profession. And the other officials are select men of known capacity; and even in the cable tank one could feel interest in the alert and active native Filipinos, whose lives might depend upon a prompt and unhesitating handling of the great coil that unwrapped like a serpent around them, and could cut them in twain so easily at the least mishap. She is an economical and capable ship and could well carry to New York men and materials (as frequent coaling is possible) and return with her specialty. Cable can not be better carried than aboard her, and the best cable is needed, without the kinks or bruises which are caused by commercial carrying, if long endurance and the best results are desired while at work under the sea. Government lines are the best amidst aliens or enemies. It is submitted that the earnest and urgent interest of our people in immediate contact with the enemy, and the pressing importance of the situation induced sending cablegrams and special reports on this subject. But doubtless the Honorable Secretary of War is cognizant of and interested in the equipment and personnel of this cable ship, and of the importance of continuing her legitimate duty.

Electrical communications. In the report of my inspection at Honolulu it was stated that the first need was a cable to unite that community with the mainland. The importance of this is intensified ten times over in reference to the Philippines. Electricity is the direction in which we can best press modern mechanical development for the immediate benefit of the civilization and government of these islands and of the economical use of our civil and military forces there. The insular conditions fail to thwart the telegraph's civilizing and beneficial influence. It can dive under the sea to reach its destination from the shore of every island and annihilate distance and minimize such obstacles to prompt intercommunication. Military necessity has driven partially toward developing it. But in peace or war it is essential and it is the natural post route among these islands and between them and home; and the circumstances there are so different from the position of a wholly continental power that perhaps the Government can extend its friendly hand and see to it that no private corporation is allowed to intrude between our fellow-citizens. Free intercommunication is of first importance in a free country, but private corporations work solely and often soullessly for private gain.

In providing for future public necessities in the way of electrical communications the astonishing rapidity with which wireless telegraphy is progressing should receive due consideration. Its great utility in signaling between ship and ship and ship and shore has been fully demonstrated; and it is reported by Lieut. Col. J. L. Chamberlain, inspector-general, that the system maintained between Fort Mason and Alcatraz Island, California, works well under all conditions of weather. Wireless vibrations have already carried signals across the

Atlantic. A long-distance wireless telegraph station on the Marconi plan can be built, it is said, for \$60,000.

When the *Campania* can keep in communication with her sister ships or the land throughout a round trip by wireless telegraphy, is it not about time that a system whose wires can not be cut should be introduced and familiarized in such war and transportation as the Philippines introduce us to?

With the exception of Companies A and B, stationed at Fort Myer, Va. the Signal Corps post of Fort Myer, Va., the personnel of this corps are scattered through the different departments, at home and abroad, wherever their services are needed. The reports from all quarters show the operations of the corps to be very satisfactory. In the Philippines grave difficulties and obstacles have been faithfully met and overcome. It has not been an uncommon occurrence for officers and men of the corps to be attacked by the insurgents and killed or wounded while repairing the lines.

The companies at Fort Myer were inspected by Maj. J. D. C. Hoskins, assistant to inspector-general, Department of the East, May 8, 1902. The following extracts from his report may prove interesting:

The post is conducted, under orders from the Chief Signal Officer of the Army, as a school for preparing enlisted men, and incidentally newly appointed officers, for their Signal Corps duties. The post commander is in immediate charge and assigns instructors in the several branches.

The course of instruction is military and technical. The military instruction embraces guard duty and the school of the soldier and company. This instruction is handicapped by the lack of a sufficient number of noncommissioned officers. The demands of the service for the best men abroad have prevented the concentration of a sufficient number of high-class drill sergeants at Fort Myer. \* \* \*

The technical instruction is given by lecture and by recitation from selected textbooks. For purposes of instruction the men are divided into four sections. The first section consists of those considered proficient or incapable of further development and who therefore do not attend lectures or instruction. The fourth section are the new recruits who, as a rule, do not recite until enough of them have arrived to justify their being entered into a class. The second and third sections are formed of those under instruction, the most promising and intelligent men being in the second section. At present the second, third, and fourth sections are under instruction in electricity and use of electrical instruments, Captain Ives instructor. Two sections recite daily, from 9.30 to 10.30 and from 10.30 to 11.30 a. m., respectively, one section having a day off every third day. This course consists of light theoretical instruction in general electrical subjects and a complete practical instruction in the use of electrical instruments, line testing, and the care and operation of electrical and telegraphic apparatus, telephones, and all kinds of wiring and line work.

\* \* \* \* \*

The personnel of the enlisted force of the Signal Corps is above the average in intelligence. While trained operators and electricians rarely enlist, the recruits in general are young men from telegraph schools throughout the country who have about half completed their course. The majority take kindly to study and instruction, and the signal officers consider them extra good material.

It takes from three to six months of hard work, depending upon the aptitude of the men, to get them in shape for service abroad. \* \* \* A studious and ambitious signalman can have the opportunity of becoming, in time, a highly accomplished and learned electrical engineer.

Is it not incumbent to introduce a limited electrical course at the Western as well as these Eastern schools?

#### MILITARY PRISONS.

During the fiscal year 1902 reports were received of the inspection of seven military prisons—the United States penitentiary at Fort Leavenworth, Kans.; the military prison at Alcatraz Island, California; the military prison at Fort Columbus, N. Y., and those at Lingayen,

San Isidro, Iba, Zambales, and Bacolor, Pampanga, in the Philippine Islands, the last named not now being used as a military prison.

United States penitentiary. It was reported that 83 military prisoners were confined in the United States penitentiary at Fort Leavenworth, Kans., at the time of inspection, as against 49 at the previous inspection, all of whom were looking well and appeared to be in good health, and from every indication received good treatment and were well cared for. The warden, whose administration of the prison seemed to be just and considerate, expressed himself as being generally well pleased with the behavior of the military prisoners. They were each questioned separately, none of the prison officials being present or within hearing, and they generally expressed themselves as being fully satisfied with their treatment by the prison authorities, and substantially had no complaints to make, though a few complained of minor matters, which were corrected. There is a library of 6,000 volumes for their use. The police of the premises and buildings was reported good.

Alcatraz Island, California. At the time of inspection there were 357 prisoners confined in the military prison at Alcatraz Island, California, of whom 207 were in the new prison building and 150 in the old prison, the latter being reported as "obsolete, badly ventilated, and unsuited for use in any capacity." The new prison, which has a capacity for 304 prisoners, was stated to be well constructed, well ventilated, and, so far as the prison rooms are concerned, satisfactory in all respects; but as the washtubs for washing clothing, bath tubs, lavatories, and water-closets are entirely inadequate even for the 207 men then in the prison, much less so should the full complement of 307 men ever be incarcerated there. The mess room was also reported as entirely inadequate, having a capacity for only 175 men, and was reported as wholly unsuited for a mess room.

An inspection of the prisoners showed them to be well fed, well clothed, well cared for, and in good health generally. The prisoners are all worked five days in the week, each man being allowed one day in the week to wash his clothing, etc. They are employed in mending roads, policing the garrison, unloading freight, cutting away the embankments, and in doing anything that can be found for them to do; to find employment for them being one of the most difficult problems presented to the commanding officer for solution. The prison chapel is inadequate, as it accommodates only about 100 persons. No regular services are held, as there is no chaplain on duty at the post. Chaplains from other posts hold services there usually on Saturday afternoons. The same room is fitted with desks for use as a school and writing room, and on Saturday afternoons and Sundays the prisoners are permitted to write their letters there. The prison library is also in the chapel and has a considerable number of volumes for the use of the prisoners.

Military prison, Lingayen, P. I. At the time of inspection there were 57 military, 3 civilian, and 164 native prisoners (total 224) in the military prison at Lingayen, P. I., whose general health was reported excellent, although there were some cases of dhobie itch and beriberi among the native and malarial diseases among the American prisoners. There had been no deaths during the year. The prisoners were confined in dormitory cells and small cells, and it was stated that they were well fed at a cost of about 15 cents Mexican per day per capita. They labor eight hours a day, the Ameri-

cans being employed in the various shops, etc., and the natives in making cane furniture. Generally there were no religious services, and no corporal punishment was inflicted. Books and papers are supplied for their recreation. The general police of the prison was good, and the bathing facilities ample and satisfactory. There are two hospitals, one for the Americans and one for the natives, and a separate hospital for beriberi patients half a mile away. This disease seems to haunt the Philippine prisons like a grewsome ghost. Its weird characteristics and fatality may have impressed the line more than the medical corps. At some places it seems noticeably deadly to native prisoners.

It was reported that there were no proper cases for clemency and no complaints from any of the prisoners. All drinking water used was sterilized, and all food was cooked by the prisoners. The bakery was also operated by the prisoners and produced excellent bread. It was stated that the only clerks were two prisoners, who are paroled for that purpose, and a civilian clerk was recommended by the inspector, as it was deemed very unsatisfactory for the prison records to be handled by prisoners and no enlisted men were available for this detail. It was stated that the prisoners had not been vaccinated, but that was afterwards attended to. It was recommended that the grounds be inclosed with a barbed-wire fence, as the native prisoners have to go to their meals, workshops, and baths outside of the prison, and there has been much annoyance from the natives of the town, who gather around the vicinity, especially at meal times, and make nuisances of themselves in their efforts to interfere or communicate with the prisoners. If driven away they return, and there is no way of punishing them, as they are outside the prison grounds. The department commander stated that there were no funds available for the construction and changes recommended at this prison.

At the time of inspection the military prison at San Military prison, San Isidro, P. I. Isidro, P. I., contained 346 prisoners, of whom 21 were Americans and 325 were Filipinos, of whom about 100 were prisoners of war; the others (who had been tried by military courts) were serving sentences for offenses against the civil laws. The discipline of this prison was reported as deserving commendation. The American prisoners were fed on the American ration, and the native prisoners on the native ration, which cost from 13 to 15 cents Mexican per day and was stated to be satisfactory. The prisoners were employed in policing the prison and grounds, repairing clothing, etc., and in carpentering, painting, laundering, and manufacturing bamboo furniture. They were also used for policing the town and repairing its streets and the public roads used for military purposes—the last of which has been a very important work. They labor nine hours a day, and no corporal punishment is inflicted. There is no special system of recreation, but reading matter, smoking, and cards are allowed in the cells outside of working hours. The bathing facilities were reported good. The hospital was found neat and clean and the health of the prisoners good, the percentage of sick being small. The principal diseases were malarial fever and dysentery, and there were no cases of beriberi, and only one death since the previous inspection, about six months before.

The discipline seemed excellent, and there were no complaints from the prisoners. It was stated that nearly all the Americans were confined for drunkenness, or offenses induced by it, and that it was seldom found necessary to discipline a native. The American prisoners

were utilized by being placed in charge of the work of the native prisoners, which was believed to have a good effect. Rain water was used for all but the American prisoners, and when there is no rain the water is not boiled. Religious services are held generally every Sunday by missionaries, for Americans only. Priests have permission to enter the prison and hold services.

At the time of inspection there were 201 prisoners <sup>Military prison at Fort Columbus, N. Y.</sup> (173 general and 28 garrison) confined in the military prison at Fort Columbus, N. Y., whose conduct was reported as very good, the regulations for their government being well observed. Everything connected with the prison was stated to be in good condition.

This prison was reported in generally very poor <sup>Military prison at Iba, Zambales, P. I.</sup> condition, but at time of inspection no repairs were contemplated, in view of the expectation of soon turning the prison over to the civil authorities.

The total number of prisoners equals or exceeds a regiment, and perhaps deserves some occasional reference in this detail.

## DISBURSEMENTS.

During the fiscal year ending June 30, 1902, there were 3,040 reports of inspections of money accounts of disbursing officers of the Army, including insular accounts, received at this office, as against 1,740 received for the preceding fiscal year—an increase of 1,300, or 74 per cent. The intelligent faithfulness which marks the performance of this duty and the painstaking care and systematic method undeviatingly adopted secure such confidence and dispel all fair ground of suspicion whenever regularly applied that such disbursements as the insular funds or National Home for Disabled Volunteer Soldiers prefer or request it; and in few cases or none in the Army where this duty is performed frequently and “untrammelled” has any defalcation occurred in excess of the bond.

For the fiscal year 1902 the number of the reports of inspections pertaining to army funds alone was 2,501; the amount involved, including transfers, being \$301,688,645.51, as against \$229,726,009.65 for the fiscal year 1901—an increase of \$71,962,635.86.

The results for the fiscal year 1902 may be summarized as follows, to wit:

Balances taken up.....		\$39, 173, 594. 65
Receipts from Treasury.....	\$147, 224, 717. 31	
Receipts from sales and other sources.....	11, 210, 745. 51	
		158, 435, 462. 82
Transfers from officers.....		104, 079, 588. 04
		<hr/>
Total to be accounted for.....		301, 688, 645. 51
Disbursements.....	\$139, 708, 702. 05	
Deposited to credit United States Treasurer, etc....	14, 866, 810. 16	
Transfers to other officers.....	113, 560, 743. 02	
		268, 136, 255. 23
		<hr/>
Balance.....		33, 552, 390. 28
		<hr/>
Balance distributed as follows:		
United States Treasury.....		22, 031, 295. 05
United States depositaries, etc.....		4, 694, 763. 00
Cash on hand.....		6, 826, 332. 23
		<hr/>
Total.....		33, 552, 390. 28

The above, of course, includes numerous inspections of the same funds, transfers, etc.

The amount of cash reported on hand this year is \$6,826,332.23, as against \$6,003,737.90 for the preceding year—an increase of only \$882,604.33, though the total sum involved for 1902 was nearly \$72,000,000 greater than that for 1901. That such large amounts were kept on hand was due to the peculiar conditions existing in the Philippines, as was explained in my last annual report.

The sum of \$1,513.76 cash on hand was held this year by treasurers of Soldiers' Homes, leaving the net amount of \$6,824,818.47 in the hands of disbursing officers of the Army. The amount for 1902 is about 0.05 per cent of the entire year's disbursements by these disbursing officers, as against about 0.057 for the fiscal year 1901; and it is about 60 per cent of the monthly disbursements, as against 145 for the preceding year and 161 for the fiscal year 1900.

The frequent transfer of money down through a series of officers instead of directly to the officer disbursing the money, and excessive amounts of cash or unused balances are more apt to become customary and lead to irregularities in flush times than hard times, and may now deserve to be rather guarded against. But nothing in the Army system deserves greater commendation during the past four years of active service in the field than the admirable, intelligent, faithful, and honest handling of its public funds. Such methods deserve the fairest appreciation. Alexander Hamilton, who was Secretary of the Treasury before he was Inspector-General of the Army, established our financial system, and, suiting well our republican and impersonal form of government, it has worked wonderfully well without undue or any very beneficial modification.

It has been stated above that there is an increase of \$71,962,635.86 in the total amount involved in this year's inspections of money accounts, as compared with similar transactions in the preceding year. The following tabulation shows where the increase occurred.

Increased amounts:	
Adjutant-General's Department .....	\$1, 633. 17
Quartermaster's Department .....	2, 962, 562. 46
Subsistence Department .....	1, 077, 785. 77
Pay Department .....	55, 921, 516. 79
Engineer Department .....	6, 449, 283. 59
Ordnance Department .....	8, 668, 040. 93
Recruiting officers .....	141, 254. 53
Transport service .....	100, 323. 46
National Home for Disabled Volunteer Soldiers .....	553, 432. 26
Total increase .....	75, 875, 832. 96
Decreased amounts:	
Medical Department .....	\$687, 626. 77
Miscellaneous .....	3, 225, 570. 33
Net decrease .....	3, 913, 197. 10
Net increase .....	71, 962, 635. 86

The Army disbursements from the Treasury for the last four fiscal years, as shown by the inspection reports of the money accounts of disbursing officers, may be designated, in groups, as follows, viz:

Designation.	1899.	1900.	1901.	1902.
Army .....	\$151,672,186.79	\$117,993,539.75	\$84,940,968.98	\$108,946,771.11
River and harbor .....	25,842,266.23	24,769,168.62	19,490,546.94	23,011,374.84
Other civil.....	6,982,941.15	7,610,288.13	7,489,074.53	7,750,556.10
Total.....	184,497,394.17	150,372,936.51	111,920,590.40	139,708,702.06

During the past eight fiscal years the relations between the total amount involved and the disbursements, transfers, deposits in the Treasury, and balances on hand appear as follows:

	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Disbursements.....	0.752	0.710	0.706	0.712	0.527	0.523	0.486	0.464
Transfers between officers.....	.158	.207	.197	.184	.372	.355	.379	.376
Redeposited in Treasury.....	.018	.013	.018	.017	.031	.048	.034	.049
Balances on hand .....	.082	.070	.079	.087	.070	.074	.101	.111

The average monthly disbursements of officers of the Army whose accounts were inspected during the year was \$11,642,225.17, and their final balances represented 287 per cent of this average, as against 264 in 1901, 161 in 1900, 158 in 1899, 173 in 1898, 118 in 1897, 125 in 1896, 107 in 1895, 88 in 1894, and 90 in 1893.

The subjoined tabulation shows the variation in these percentages in the principal disbursing departments during ten fiscal years. Are not the methods indicated ten years ago rather more businesslike and economical than now?

Department.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Engineer.....	82	75	83	116	133	160	148	158	174	246
Ordinance.....	105	115	139	113	130	86	123	174	234	346
Quartermaster.....	120	135	179	170	161	256	186	245	361	288
Subsistence.....	39	73	119	89	109	133	146	68	134	185
Medical.....	186	83	131	205	71	313	126	171	261	279
Pay.....	90	66	83	97	101	108	142	142	231	337
Total.....	90	88	107	125	118	173	158	161	264	287

The total number of inspections made during the fiscal year, including statements made under paragraph 978, Army Regulations, and not including inspections of insular accounts, was 2,501.

The following tabulation shows the number of these inspections for four fiscal years—the law requires such inspections to be made frequently; and though the work has been tripled, the record proves it has been persistently performed and supervised with all the old vigor and success. Army disbursements are proverbially reliable, as always.

	1899.		1900.		1901.		1902.	
	Offi- cers.	Inspec- tions.	Offi- cers.	Inspec- tions.	Offi- cers.	Inspec- tions.	Offi- cers.	Inspec- tions.
General staff officers.....	324	497	301	666	283	458	350	838
Post staff officers.....	217	391	316	554	431	720	997	1,434
Other line officers.....	36	46	109	175	109	136	137	216
Soldiers' Home.....	10	12	11	11	13	15	13	13
<b>Total.....</b>	<b>587</b>	<b>946</b>	<b>737</b>	<b>1,406</b>	<b>836</b>	<b>1,239</b>	<b>1,497</b>	<b>2,501</b>
Average each general staff officer...	1.5		2.2		1.6		2.37	
Average each post staff officer.....	1.8		1.7		1.7		1.45	

Major Adams (Texas) says:

Considerable difficulty has been experienced in getting the statements of money accountability of disbursing officers when they cease to act, or their accounts are closed on change of station. The required statements are in many instances not made; again, in others, they are forwarded direct to the Inspector-General of the Army instead of to this office. I made an attempt to overcome this by requesting the adjutant-general of the department to instruct post commanders to forward to this office copies of post orders relieving disbursing officers from duty. These instructions have been issued, but have not been strictly complied with and frequently I am without any information of disbursing officers having been relieved, and consequently not in position to see that the provisions of A. R. 978 are complied with.

The following summary shows the transactions in the inspection of insular funds by officers of the Inspector-General's Department and received at this office during the fiscal year 1902. From Cuba there was only one inspection of insular accounts received during the year; and from the Philippines there were 538—a total of 539 inspections of insular accounts received during the year.

The following were the amounts involved, to wit:

Designation.	Cuban.	Philippines.	Total.
Balances taken up.....	\$2,236.10	\$2,613,042.23	\$2,615,278.33
Received from insular treasury.....		2,884,120.11	2,884,120.11
Received from other officers.....	1,053.33	3,022,296.01	3,023,349.34
Received from sales and other sources.....		5,833,610.39	5,833,610.39
<b>Total.....</b>	<b>3,289.43</b>	<b>14,353,068.74</b>	<b>14,356,358.17</b>
Disbursements.....	2,334.63	5,506,736.19	5,509,070.82
Transferred to officers.....	384.99	2,909,936.55	2,910,321.54
Deposited in insular treasury.....	569.81	3,834,256.03	3,834,825.84
<b>Total.....</b>	<b>3,289.43</b>	<b>12,250,928.77</b>	<b>12,254,218.20</b>
<b>Balance to be accounted for.....</b>		<b>2,102,139.97</b>	<b>2,102,139.97</b>

Distribution of balance, Philippines:

United States subtreasuries.....	\$2,461.74
Banks, etc.....	1,376,488.71
Cash on hand.....	723,189.52
<b>Total.....</b>	<b>2,102,139.97</b>

Colonel Burton (Cuba) says:

The accounts of officers of the Army and civilians disbursing insular money were inspected on an average every three months, necessitating 275 inspections, involving \$34,799,640.60. The only defalcation observed was that of J. B. White, disbursing clerk of the department of immigration, in the sum of \$1,453.98, who absconded and has not since been apprehended. \* \* \*

The inspection of money accountability and the verification of cash in the treasury by actual count were made by the inspector-general and his assistants. The frequent and rigid inspections of all expenditures of insular money required by the military



governor were unquestionably a bar to speculation and fraud. The one great influence to honest expenditures arose from the adoption in the early part of 1900 of the system of payment by check. The custom at one time on the part of a number of disbursing officers was to draw large amounts of cash to be used from their safes, drawers, or boxes in liquidation of all kinds of obligations. This opened the door to the borrowing from the public funds for private use, to be returned at the end of the month, and the method was always an inducement to trouble for Cubans, who had had no experience in the severe methods practiced by American officers.

#### CONDEMNED PROPERTY.

Monarchs who speak of their loyal subjects or faithful soldiery can show personal generosity in their gifts, but the rigid accountability required in an impersonal government has led to perpetual accounting, even to shoe strings; and responsible officers who found statements of differences, not only from bureaus but also from auditors and even comptrollers, must feel surprised now that the Treasury confine their attention to money.

From an early period in the history of our Govern-  
Property account-  
 ability. ment the careful supervision of public property, and vigilance and prudence in the methods of eliminating it from the service, received thoughtful attention, and was guarded by law as well as by regulations and the customs of service. That this method has saved, through the cumulative years, vast sums of money to the service, perhaps no one who has given the subject anything like careful study will fail to appreciate or care to deny. It should be equally apparent that any relaxation in the carefulness and vigilance of this supervision would necessarily result in losses which in the aggregate are not inconsiderable. We must rest at the point where the search is still worth the candle, but carelessness in the care of Government property can not be encouraged.

Some recent indications of carelessness in this matter may be evidenced by a few cases that have actually occurred. For instance, electrical apparatus that cost approximately \$400,000, and which the special inspector thought was still worth \$5,000, was recommended to be "broken up," without any bureau supervision or even the usual property returns. Such a precedent might lead to methods much more expensive than have hitherto prevailed under the principles established by Congress and maintained by the courts and accounting officers, that property should always be fully accounted for as ultimately either issued, expended, or sold at public auction; so whenever finally eliminated it is clearly recorded, and if not expended as appropriated for, but condemned, it must be done on the independent testimony of two officers of different departments after personal scrutiny, one of the supply department and the other not, whose reports are seen by their respective chiefs. Can public property be better safeguarded in any other way so well entitled to public confidence?

Or if a post quartermaster be permitted to destroy certain property on his own volition, and without the usual inspection, when in his opinion it had become unserviceable and worthless, or sell a horse not, or different from the one, condemned, would it not be questionable? This unusual proposition, however, like the previous one, was not favorably received; and the hesitation of higher authority to authorize an officer accountable for public property to simply drop it, or sell it, or destroy it ad libitum, is very natural, however appealed to. Evidently the simple verification of stores so disposed of has not proved unimportant, though not always agreeable.

There may be no disposition toward loose methods about public property, as indicated in the unusual number of such cases cited from time to time, nor any feeling that the careful supervision of it is unimportant. But at present to eliminate property from the public service without the action of a disinterested inspector seems questionable public policy and contrary to law. The disposition of public property is perhaps more difficult to accurately supervise than public money, and carelessness or unskillfulness may lead to largely increased expense.

If economy is still to be enforced in this matter, the condemnation of public property becomes an arduous and comparatively unpleasant task which anyone may prefer to escape. But millions of articles, valued at millions of dollars, are annually presented for condemnation; and careful economy and scrutiny seem soon to effect a saving of hundreds of thousands of dollars. Is this not well worth while? It is done quite incidentally to other work and comparatively without expense.

Under the opinion of the Judge-Advocate-General of February 7, 1895, whose views concerning the act of March 3, 1825, were approved by the Assistant Secretary of War on February 15, 1895, it seems that a uniform and correct practice should prevail, and that property can not be legally or properly sold without the action of an inspector. Evidently the matter of finally recommending the sale or destruction of stores is not a duty which should be habitually assigned by law only to the same officers who are intrusted with the purchase, care, or use of the stores. It can not be desired that accountability for public stores should become a farce.

The statistical records of this office show that since 1892 the sum of about thirty-five millions of dollars was involved in the elimination from the public service of unserviceable property by condemnation. How much these figures may be augmented by a departure from the legal course of authorized inspection by wholly disinterested officers who are experienced and expert at such inspection duties may deserve careful consideration. The old way has proven just, as well as economical. But a love of novelty may lead in the other direction.

The cost of some thirty articles of subsistence stores that were inspected and condemned during the fiscal year ending June 30, 1902, has been computed from inventory and inspection reports received in this office, and the total original cost of these articles for the year is reported as \$283,602.23, as against \$308,520.69 for 1901, a decrease of \$24,918.46, and \$290,020.21 for 1900, a decrease of \$6,101.75 from the figures of that year. For 1902 the percentage of these losses geographically were:

Philippine Islands.....	86
Cuba and Porto Rico.....	7
Alaska and Hawaii.....	2.5
Transports.....	2.3
United States.....	2.2
Total.....	100

Combining the percentages of all the tropical isles, the Philippines and the Antilles, it will be seen that 93 per cent of all losses on the articles named were in these islands, to which might very properly be added the transport losses, which would bring the per cent of losses in the tropics up to 95.3 of the total loss. It is believed that with experience there and the absence of war conditions this percentage can hardly continue indefinitely.

In the United States there was a decrease of losses in these articles during the year, the amount for 1902 being \$6,467.37, while in 1901 it was \$11,631.17, and for 1900, \$84,814.17. In Cuba and Porto Rico the losses were \$19,412.84 for 1902 and \$22,016.02 for 1901. On the transports the figures were \$6,652.61 for 1902 and \$20,397.40 for 1901. In Alaska and Hawaii the losses in 1902 were \$7,041.20, as against \$1,500.16 in 1901, a very decided increase, but the sum involved is comparatively insignificant; and by far the greater part of these losses was in Alaska, which is an essentially expensive region, where transportation adds more than the original cost. In the Philippines the losses for three years have been as follows: 1902, \$244,028.21; 1901, \$252,916.16; 1900, \$113,816.28; and for these years the percentages in the Philippines of the entire condemnation of the named articles were: 1902, 86 per cent; 1901, 82 per cent; 1900, 39 per cent. So, while during the past fiscal year there was a shrinkage in the amount of these losses in the Philippines as compared with the previous year, those islands show an increase of 4 per cent in their percentage of the entire value of these subsistence stores condemned, and here also the cost of transportation always deserves special consideration, making every article, some say, cost a half a dollar a pound before consumed. In 1897 condemned subsistence stores amounted to \$2,398.66.

The totals for the fiscal years 1900, 1901, and 1902 show an aggregate loss for the three years (this tabulation having been begun in 1900) of almost a million dollars (\$882,143.18, to be exact) on the thirty-three articles of subsistence stores considered. The largest items of these losses are, for the three years: Issue bacon, \$121,524.57; potatoes, \$113,364.89; bread, hard and soft, \$83,440.55; plug tobacco, \$68,588.01; smoking tobacco, \$56,318.85; onions, \$55,618.01; flour, \$50,998.04; butter, \$46,363.12; canned tomatoes, \$41,887.53; canned fruit, \$40,747.97; oatmeal, \$34,566.19; fresh beef, \$33,621.43; sugar-cured ham, \$17,175.54. The smallest loss for the three years on any one of the articles was \$1,203.57, on canned bacon. The particular brand of each article, which endures best and is the favorite with the consumers, is worthy of study, but is a detail of administration hardly necessary to more than refer to now.

No doubt every reasonable effort has been made to prevent or minimize these losses, as well as those of public stores of every description. As has been shown, about 95 per cent of the losses on these articles occurred in the Tropics and some 86 per cent in the Philippines alone; where the reasons assigned for the excessive losses of such articles are their generally perishable nature, frequent transshipments, and the very unfavorable climatic and other conditions. Campaign conditions, in many cases, doubtless caused losses also. The per cent of loss of the total stores purchased or of those shipped to the Philippine Islands is not excessive, and the improved conditions in every respect will secure still better results in the future and the purchases will not be so very large.

The total number of inventory and inspection reports received at this office during the fiscal year ending June 30, 1902, Property eliminated. was 7,502, as against 6,168 (an increase of 1,334) for the preceding year, and 3,521 for 1900, and 3,425 for 1899. Before 1899 the number of such reports received annually averaged about 1,700 a year. During the fiscal year 1902, therefore, it seems that

more than four times as many inventories were submitted than were submitted then; and about twenty-one such inspections were made every day, including Sundays. The excess of reports received over the largest received in any previous year was 1,334, and the excess over the average number of such reports received annually before 1899 was 5,802, and over the average received in the three years 1899, 1900, and 1901 (4,371), 3,131. And the property reported condemned probably less fully represents the amount sold or disposed of than has been the case for some years. If the annual expenses of the Army be kept down nearer to \$900 per soldier than \$1,000, the closest attention must be given to these dry facts relating to the expenditure of money and property.

The reports received during the fiscal year 1902 show that 13,541,545 articles (including units of weight and measure) were inspected, and that of this number 12,693,681 were condemned, and 847,864, or about 7 per cent, were retained in service. During the preceding fiscal year 21,914,832 articles were condemned, and 601,387, or about 2½ per cent, were retained in service.

Of the articles presented for inspection 11,820,202, or about 80 per cent, had their original cost price given, as against about 49 per cent for the preceding year. There was a great improvement in this respect during the fiscal year 1902, when the reports showed only 1,721,343 articles the cost of which was not given, against 11,914,586 for the preceding year.

If such accurate information is habitually given, it indicates that care and attention is being again given to such matters as will naturally lead to due economy, so that the money expended will be certainly needed where applied, and a dollar will habitually buy a dollar's worth, and full use will be gotten from the articles purchased. Our military system and supplies must be the best for our purpose and environment, for military success depends upon it; and that it has been the best, success has fully proved throughout our history. We have the best, because we can afford it, and we can make the best use of it. And in this vein and in calm reliance on our own methods we are willing to continue steadfast to the end.

By applying the average value of the articles of which the price was given to those of which the cost price was not given, it is found that the approximate original cost of all the articles inspected during the year aggregates the sum of \$5,078,079.38, and of these the articles that were retained in the service cost approximately \$544,874.94. This would make a per capita per enlisted man of about \$75 for articles condemned, and of about \$8 for articles retained in the service. For the preceding fiscal year these per capitas were \$79 and \$7, respectively.

This apparent saving of something like a half million of dollars per annum by the consistent and conscientious attention to \$5,000,000 worth of old junk is not pleasant, but does it pay? If the Government does not desire it, every officer would be glad to be excused from it. It can not be as efficiently done in any other way. Now it simply comes into the day's work when one has to be on the ground anyway doing more important things, so whatever the annoyance, the cost is nil and the saving considerable—indeed, much greater than the entire cost of the general inspection of the Army in all its ramifications by this department, so that on proper modern business principles the Army is fully inspected without any expense, but simply by the saving effected in this one matter in guarding against undue waste.

The following classified tabular statement shows the total amount of property inspected and its disposition so far as shown by the reports during the fiscal years 1901 and 1902. As compared with 1901, the last fiscal year shows a considerable falling off in the number of articles inspected—the difference between 22,516,219 and 13,541,545—but the approximate original cost of the articles in 1901—\$6,372,290.35—is only \$1,294,210.97 greater than for 1902.

*Statement showing property inspected and condemned, and inspected and retained in service, compiled from reports received during the fiscal years 1901 and 1902.*

## FISCAL YEAR 1902.

Designation.	Inspected and condemned.			Inspected and retained in service.		
	Number, cost stated.	Money value.	Number, cost not stated.	Number, cost stated.	Money value.	Number, cost not stated.
Staff .....	3,999,601	\$1,436,181.23	1,099,102	64,109	\$46,121.03	3,316
Posts .....	6,505,789	2,053,518.90	540,260	664,428	328,112.12	63,758
Armories and arsenals .....	58,791	147,648.15	1,290	4,185	1,052.94	199
Transports .....	199,924	34,028.22	3,945	2,647	2,249.43	2
Cavalry .....	126,929	184,661.51	3,003	15,826	64,522.13	700
Artillery .....	9,420	14,481.80	551	5,942	12,831.75	314
Infantry .....	136,677	80,761.51	3,667	22,085	64,150.59	434
Public civil fund .....	2,744	447.65	345	1	3.71	2
Miscellaneous .....	1,190	3,287.35	453	14	58.62	2
Total .....	11,041,065	3,955,016.32	1,652,616	779,137	519,102.32	68,727

## FISCAL YEAR 1901.

Staff .....	4,018,714	\$753,200.63	499,889	189,470	\$146,057.00	17,384
Posts .....	5,516,706	1,398,422.38	10,641,331	127,656	113,842.34	106,558
Armories and arsenals .....	177,143	20,232.65	491,378			
Transports .....	189,038	21,807.12	24,676	3,851	3,120.60	5,804
Cavalry .....	106,122	179,437.18	9,296	27,011	111,101.83	1,664
Artillery .....	39,365	21,233.97	10,289	6,432	28,454.11	841
Infantry .....	88,508	66,613.87	6,834	43,823	74,273.56	1,605
Volunteer troops .....	48,002	38,131.57	4,636	9,925	15,066.84	270
Miscellaneous .....	9,522	13,818.70	33,323	290	647.66	58,658
Total .....	10,193,180	2,512,900.07	11,721,652	408,458	487,562.44	192,384

Copies of inventory and inspection reports received for file in this office since February, 1892; may be summarized as follows:

	Number of reports.	Cost of articles condemned.	Cost of articles retained.	Total cost.
1892 to 1900, inclusive .....	19,847	\$16,898,442.16	\$3,843,677.12	\$20,742,119.28
1901 .....	6,168	5,830,128.59	542,161.76	6,372,290.35
1902 .....	7,502	4,533,204.44	544,874.94	5,078,079.38
Total .....	33,517	27,261,775.19	4,930,713.82	\$2,192,489.01

These figures, covering about ten years, may serve to show the magnitude of the interests involved in the inspection of public property, and how essential it is that such inspections should be made by expert, careful, and independent inspectors. Nearly five million dollars worth of stores were continued in the Government service.

The following tabulation from the reports received during the fiscal year 1902 shows the number of public animals that were inspected, condemned, and retained in the service

Public animals.

during that fiscal year; and a similar tabulation for 1901 is added for purposes of comparison, to wit:

	Inspected and condemned.			Inspected and retained in service.		
	Number cost stated.	Money value.	Cost not stated.	Number cost stated.	Money value.	Cost not stated.
<b>FISCAL YEAR 1902.</b>						
Staff.....	120	\$13,827.85	10	5	\$437.00	.....
Posts.....	a 2,523	311,863.68	724	242	22,353.36	392
Cavalry.....	690	80,294.09	255	83	8,872.24	151
Artillery.....	3	387.50	27	51	5,236.95	17
Infantry.....	14	1,960.00	16			
Arsenals and armories.....	3	450.00				
Civil fund.....	3	115.00				
<b>Total.....</b>	<b>3,356</b>	<b>408,807.12</b>	<b>1,032</b>	<b>381</b>	<b>36,989.55</b>	<b>560</b>
<b>FISCAL YEAR 1901.</b>						
Staff.....	259	22,737.02	425	39	4,660.00	53
Posts.....	454	61,868.94	536	51	5,316.70	26
Cavalry.....	550	66,687.76	899	135	12,197.30	151
Artillery.....	8	1,206.50	30	2	294.00	6
Infantry.....	1	60.00	34			
Volunteer troops.....	27	2,521.00	27	8	605.00	10
Civil fund.....	b 13	362.50	41			
Insular.....	3	300.00				
<b>Total.....</b>	<b>1,315</b>	<b>156,743.72</b>	<b>1,992</b>	<b>235</b>	<b>23,073.00</b>	<b>261</b>

a Including 2 Alaskan dogs, 5 bulls, 3 carabaos.      b Including 3 carabaos, or water buffaloes.

The total number of public animals presented in 1902 was 5,229, as against 3,803 in 1901; an increase of 1,426. In 1902, 3,356 animals, cost \$408,807.12, were condemned, against 1,315, cost \$156,743.42, in 1901; an increase of 2,041 animals and \$252,063.70.

In 1902, 1,032 animals, the cost of which was not given, were condemned, against 1,992 in 1901; a decrease of 960. And there were retained in the service 381 animals, cost \$36,989.55, against 235, cost \$23,073, in 1901; an increase of 146 animals and \$13,916.55. And of those the cost of which was not given there were retained in the service 560, against 261 in 1901; an increase of 299.

In 1902 the total value of the 3,737 animals, the cost of which was given (70 per cent, against 55 per cent for the preceding year), was \$445,796.67, an average of \$119.29, as against an average of \$116.01 for the preceding year. On this basis the total approximate value of the whole number of animals presented was \$635,706.41 and of the 941 retained in the service, \$112,251.89. In the preceding fiscal year, by a similar calculation, the value of all the animals inspected was \$325,756.08 and of those retained in the service, \$57,540.96.

Since 1892 the inventory and inspection reports received at this office relating to public animals may be summarized as follows:

Period.	Cost of animals condemned.	Cost of animals retained in service.	Total cost.
1892 to 1900, inclusive.....	\$1,793,187.48	\$279,711.33	\$2,072,898.81
1901.....	268,215.32	57,540.76	325,756.08
1902.....	523,454.52	112,251.89	635,706.41
<b>Total.....</b>	<b>2,584,857.32</b>	<b>449,503.98</b>	<b>3,034,361.30</b>

General summary. Combining the inspections of public animals and other public property for the last ten years, as shown by reports received at this office, the following results are shown:

	Condemned.	Retained.	Total.
Miscellaneous.....	\$27,261,775.19	\$4,930,713.82	\$32,192,489.01
Public animals.....	2,584,857.32	449,503.98	8,084,361.30
Total.....	29,846,632.51	5,380,217.80	35,226,850.31

So it appears that in the brief space of ten years more than thirty-five millions of dollars worth of public property has been presented for inspection, of which more than five millions worth has been retained in the service, which was practically a saving to that extent. When judicious inspection, as in this instance, saves the handsome sum of more than half a million dollars a year in one item alone through a series of years, it seems to be paying for its keep very generously indeed. But this may not be popular, or some may claim it can be done better amid the castles of Spain.

The pressure to get rid of obsolete and worthless stores, which tend to fit their place and abide there as easy as an old shoe, it is believed benefits efficiency as much as it promotes economy under this system of organized inspections; as some may testify who have seen the I. C. worn about a garrison on an over-fat old horse still fit for women or children, but bearing silent witness of unfitness for war.

The disease known as glanders seems to have prevailed to an alarming extent during the past fiscal year, and especially in the Philippine Islands. The reports received show that during the year there were presented for inspection a total of 1,419 animals that had the glanders, of which 1,311 (nearly 94 per cent) were in the Philippines, 66 in Cuba, 28 in the United States, 12 in Porto Rico, and 2 in Alaska. There were probably many other animals presented that had the glanders, especially in the Philippines, where in many cases it was stated on the reports that the animals were afflicted with "incurable disease," or "infectious disease," without mentioning specifically what the disease was. Other diseases that were more or less prevalent among public animals during the year, and especially in the Philippines, were "surra," farcy, and tetanus, or lockjaw. The number of public animals stated to be afflicted with the glanders was 26.6 per cent of the whole number presented during the year. This condition also suggests how native animals were also suffering, and what a great loss was endured by the death of carabao, cattle, horses, hogs, etc., by the tens of thousands.

During the year there were also presented for inspection 441 animals (as against 694 for the preceding year) that were blind in one or both eyes, or were afflicted with diseases leading to blindness. Those presented for blindness constituted about 8.3 per cent of the whole number presented, as against almost 25 per cent for the preceding year. For the two years the animals presented for blindness may be summarized as follows:

	1901.	1902.	Decrease.	Increase.
Cuba.....	484	272	212	.....
United States.....	116	70	46	.....
Porto Rico.....	62	1	61	.....
Philippines.....	31	97	.....	66
Alaska.....	1	1	.....	.....
Total.....	694	441	319	66
Net decrease.....	.....	.....	253	.....

AUCTION SALES.

During the year 514 reports of auction sales of condemned property were received, as against 489 for 1901, 333 for 1900, and 229 for 1899. The amount of the sales reported for 1902 is \$243,412.85, as against \$169,412.61 for 1901, an increase of \$74,000.24.

The following tabulation shows in detail, by staff departments, the number of auction sales reports received and the amounts realized by the sales they represent during the last two fiscal years, to wit:

	Reports received.		Animals sold.		Proceeds of sales.	
	1901.	1902.	1901.	1902.	1901.	1902.
Quartermaster:						
Supplies.....					\$83,408.00	\$98,304.34
Horses.....	332	310	1,107	1,298	44,384.79	63,507.24
Mules.....			333	228	17,120.95	18,779.80
Subsistence.....	57	63			5,207.93	9,341.80
Medical.....	34	48			5,561.36	5,180.48
Ordnance.....	12	24			5,011.26	24,883.04
Engineers.....	53	64			8,668.32	23,300.00
Signal.....	1	5			50.00	116.15
Total.....	489	514	1,440	1,526	169,412.61	243,412.85

The sum of about \$245,000 a year is a very pretty saving; but the figures are really much larger than that sum, since quite a number of reports of auction sales (mostly in the Philippines) were not received in time to be included in this report.

It is a question whether property always brings enough to justify its sale, though in most cases it undoubtedly does. During the fiscal year just closed the property sold (so far as the reports received show) cost, approximately, \$1,083,190.47, and it sold for \$243,112.80, or about 22 per cent of its cost. The total number of articles sold was 3,111,855, and the average cost per article was about 35 cents, and the average selling price per article was about 7 cents. The matter may be stated in detail, by staff departments, in the following tabulation:

Department.	Number of articles.	Original cost.	Sold for.	Per cent of cost.	Average cost per article.	Average selling price per article.
Subsistence.....	516,464	\$27,954.65	\$9,341.80	33.5	\$0.052	\$0.02
Engineer.....	1,648,407	329,681.40	23,000.00	7	.20	.014
Medical.....	45,062	41,471.19	5,180.43	12.4	.92	.115
Quartermaster.....	825,289	313,609.82	98,304.34	31	.38	.118
Public Animals.....	1,526	227,236.66	82,287.04	36.2	148.91	53.80
Ordnance.....	66,136	142,916.40	24,883.04	17	2.16	.37
Signal.....	8,972	315.35	116.15	36	.036	.012
Total.....	3,111,855	1,083,185.47	243,112.80	22	.35	.07



Recommendations. Quartermaster-General Meigs was so decidedly in favor of selling rather than breaking up or destroying condemned property that he got the principle inserted in the Army Regulations. This résumé may indicate current results.

The following recommendations have been made by inspectors-general in their annual reports for 1902 regarding inspection and condemnation of property, to wit:

Colonel Burton says:

The inspection of ordnance should be under the same rules as now govern the inspection of other Government stores and property. There is no apparent good reason why the disposition of a worthless saddle should require the special action of the Secretary of War.

Major Irons says:

From communications received at this office, the Inspector-General of the Army evidently has discovered much negligence on the part of officers who have failed to submit a copy of the auctioneer's detailed account of the sale of condemned property, as required by paragraph 761, A. R. I am of the opinion that this is caused by ignorance of the regulations on the part of officers, by its not being indexed in the regulations under the head of auction sales or Reports, Auction Sales, or Sales—thus causing more or less obscurity of the regulation. I suggest that a reference to this paragraph be placed on the form issued by the quartermaster for this purpose; also that some reference be made to it on the inventory and inspection report.

Attention is invited to the large number of padlocks condemned. Many of these are rendered unserviceable by the loss of keys. It is suggested that some special kind of lock having different combinations might be used, each combination having a special number. In case a key is lost it might be replaced at small cost by requisition, naming the number. The Yale lock has many combinations. In reality the party losing the key should pay for it, but I find on making inquiries on this subject that no one knows who is responsible for the loss. The majority of these keys seem to be lost by the members of the guard. Another article which appears to be condemned in large quantities are horseshoe rasps. The life of one of these appears to be exceedingly short.

I find at most of the posts there is no method for the surgeons to fix the value of articles placed on inventory and inspection reports. If this information is considered valuable I recommend that the purchasing agents of the Medical Department prepare a price list of such articles as are issued, or invoice price of articles be furnished surgeons when articles are invoiced. This same trouble exists in all departments, except Ordnance Department. Quartermasters have price lists furnished by business firms, and the information is thus obtained. Commissary property also creates some trouble, and invoice prices should be given with invoices.

#### SOLDIERS' HOME, DISTRICT OF COLUMBIA.

The annual inspection of the Soldiers' Home, District of Columbia, required by law, was made May 27-30 and July 7-10, 1902, by the Inspector-General, assisted by Lieut. Col. T. T. Knox, inspector-general, and Mr. William T. Kent, the accountant of the Department. Since the last inspection the only change in the officers of the Home was the appointment of Maj. H. M. Kendall, U. S. Army, retired, as treasurer, vice Capt. Charles W. Taylor, U. S. Army.

The Home was in a most creditable condition throughout. The care of the old soldiers and the comforts afforded them speak well for the efficiency of the officers in charge.

The average number of members present during the past fiscal year was 896, or 32 more than for the preceding year, and is 62 per cent of the total average membership of the Home. An average of 373 members received outdoor relief, or 39 less than for the preceding year. They received an average of \$81.44 each. The average annual per capita cost of maintenance at the Home was \$251.29. The saving

effected by the system of outdoor relief is plainly apparent, and that it is popular is evidenced by the number of members who avail themselves of it. Possibly this system might be advantageous at the Volunteer Homes, where the law expressly authorizes it.

The discipline continues to be commendable; 90 per cent of the average present committed no offense. Drunkenness, as heretofore, continues to be the principal offense. This might be lessened by the establishment of a post exchange. But the organized opposition, as well as the prejudice against such exchanges, would probably prevent even a dry one being established.

An examination of the treasurer's accounts, books, etc., since the last inspection, showed a total expenditure from the Home fund of \$318,496.27, or nearly \$30,000 less than for the preceding year. The cost of construction was \$60,926.42, or \$44,622 less than for the previous year. The actual expenses for the year were \$257,569.65. The total credit settlements for the year amounted to \$536,045.62, and with the \$90,430.10 interest on deposits, makes the total legitimate income of the Home, for the year, \$626,475.72, which was \$306,906.07 more than the actual expenses of the Home. The sum collected from active soldiers amounted to \$465,028.31. At the end of the year a balance of \$3,120,612.71 was left to the credit of the permanent fund, and this is the largest balance ever yet carried over, and speaks well for the financial status and management of the Home.

The interest account shows an equally prosperous state, the balance at the end of the fiscal year being \$23,651.94, or \$2,768.83 more than for the previous year.

On June 30, 1902, there were 1,001 pensioners on the rolls, 725 of whom were present at the Home. During the past fiscal year \$104,892.93 was paid to pensioners, and the balance on hand at that date was \$54,726.81. This is a considerable increase over the large balance of the pension fund that is habitually kept on hand. It is believed that it would relieve the Home of much trouble and expense if pensions could be paid direct from the pension agent to the pensioners at the Home. Or, if this may not be, then it seems only proper that the clerk hire required at the Home for this duty should be paid by the Pension Bureau, to which the work properly pertains, and which is relieved to this extent by the Home pension clerks. Also, the pension balance, if treated like soldiers' deposits, and allowed to go on interest, like the permanent fund, would be equally safe, and would earn enough to pay the pension clerk hire, or more.

The books, accounts, vouchers, and records seemed neatly and accurately kept, and were altogether very commendable.

The fiscal year of the Home has at last been made to conform to the Government fiscal year, as has so often been recommended by this office. It seems that the circle of improvements at the Home is approaching culmination and completion. There is now less overcrowding, improved fare, more abundant walks, hospital elevators, fresh bedding, good beds, more amusements, finer plants, and removed stables.

The average expense per capita for the year was \$251.28 $\frac{1}{2}$ , which is an increase of \$39.42 over the per capita cost of the preceding year. The following tabulation shows the comparison with last year as to the various subheads for the fiscal years above mentioned.

Subheads.	1901.	1902.	Increase over 1901.	Decrease from 1901.
Subsistence .....	\$49. 79	\$62. 2287	\$12. 4387	.....
Clothing .....	20. 91	22. 39	1. 48	.....
Household .....	47. 85	40. 2650		\$7. 5850
Current expenses .....	40. 67	93. 2412	52. 5712	.....
Hospital .....	24. 73	9. 75		14. 98
Farm .....	12. 31	13. 2025	8925	.....
Repairs .....	15. 60	10. 21		5. 39
Total.....	211. 86	251. 2874	67. 3824	27. 9750

From the above table it will be observed that the increased expense per capita for the fiscal year 1902 over that of 1901 appears to be due principally on account of current expenses and subsistence, both of which subheads were considerably in excess of last year.

The following table shows a comparison of the average per capita cost at this Home with that of the Volunteer Home for the fiscal year 1902:

Subheads.	Regular Home.	Volunteer Home.	Costs above Volunteer Home.	Costs below Volunteer Home.
Subsistence .....	\$62. 2287	\$58. 8887	\$3. 34	.....
Clothing .....	22. 39	11. 23	11. 16	.....
Household .....	40. 2650	24. 40	15. 8650	.....
Current expenses .....	93. 2412	13. 0862	80. 1550	.....
Hospital .....	9. 75	13. 73		\$3. 98
Farm .....	13. 2025	3. 1437	10. 0588	.....
Repairs .....	10. 21	12. 84		2. 63
Total.....	251. 2874	137. 3186	120. 9788	6. 61

From the above table it will be seen that the average cost per capita at this Home exceeds that of the Volunteer Home by \$113.9688, which was principally due to the unusually heavy cost for current expenses for the year, the average cost of which, per man, exceeded that at the Volunteer Home by \$80.1550. The per capita excess at the Regular Home is not double, but is 82 per cent more than that of the Volunteer Home.

The hospital was found to be in excellent condition, showing scrupulous care and attention had been paid to all details. It is, however, in need of some more conveniences for the sick during the cold weather, such as inclosing some of the porches with glass or erecting a solarium on the roof. It has a capacity of 120 beds. The total number of cases treated during the year was 3,119, and the daily average treated was 103.97, or 4.21 more than last year. The total number who died during the year was 102, or 6 more than last year. The average age at time of death was 56.17 years.

Applicants for admission to the Home, entitled to its benefits, who are suffering with tubercular diseases, instead of being admitted as resident members, are granted admission to the general hospital established at Fort Bayard, N. Mex., for treatment. In such cases as may be necessary, applicants are provided by the Home with transportation there, the cost of which is refunded from their pensions, except in special cases. It is stated that the percentage of recoveries

at this general hospital is large, even among those of the patients who are in the most advanced stages of tuberculosis. There were 71 members reported as being there at the time of inspection, and during the time of the inspection of the National Home for Disabled Volunteer Soldiers they also were visited.

#### NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

Since the abridgment by act of Congress approved March 3, 1901, of the supervision and audit by the War Department, of the accounts and vouchers of the National Home for Disabled Volunteer Soldiers, the latter no longer pass through this office nor here receive the close scrutiny of past years, but are transmitted direct to the accounting officers of the Treasury Department. The annual inspection of the Home by an officer of the Inspector-General's Department, however, is still continued, in accordance with the act of August 18, 1894 (28 Stat. L., 412), and under the legal decision of the Judge-Advocate-General of the Army, dated April 24, 1901, as to the status of the War Department in view of the new legislation.

This inspection was made for the fiscal year ending June 30, 1902, by Lieut. Col. Thomas T. Knox, inspector-general, accompanied by Mr. A. B. Horner, clerk inspector-general's office, except the Mountain Branch and the office of the president of the board of managers and the general treasurer's office, to which latter place he was accompanied by Mr. D. C. Spencer, clerk inspector-general's office. During the year the sudden death on September 29, 1901, of Maj. J. M. Birmingham, the general treasurer of the Home, was a cause of sincere regret and produced considerable embarrassment in the financial affairs of the Home, as he was a man of much ability and earnest faithfulness, and had filled the office from the time of its creation. The vacancy was filled by the promotion of the assistant general treasurer, Maj. Moses Harris.

There are at present eight branches of the Home in operation, and with the addition of the Mountain Branch, which shortly will be in operation, and of the National Sanitarium at Hot Springs, S. Dak., provided for by act of Congress approved May 29, 1902, there will be ten branches, each located in a different State of the Union, for the accommodation of its old veterans.

The various Branches were found, on this inspection, to be in excellent condition generally, as to the buildings and grounds, and the officers are both efficient and painstaking, with the welfare of the nation's wards ever in view; and the Board of Managers show marked zeal and fidelity in their successful efforts to properly perform the trust imposed upon them.

The constantly increasing population of the Home would appear to render necessary some system of outdoor relief, as is already authorized by section 4833 of the Revised Statutes, mentioned in previous reports. The success with which the system of outdoor relief has met at the Regular Home, where it has proved a benefit to the members and an economy to the Home, would indicate that it would also be a satisfactory solution of the problem of providing for the increasing numbers of old soldiers seeking the aid and relief provided for those

who become members of the National Home for Disabled Volunteer Soldiers.

The total average population of the Home for the fiscal year ending June 30, 1902, was 27,084, or an increase of 794 over the previous year; and the average present during the same period was 20,501, or an increase of 490 over last year. The average absent was 6,583, an increase of 306 over last year, and should some contingency arise to cause these absent members to return to the various branches to which they belong, the advantages of a system of outdoor relief would then become apparent.

The per capita cost for maintenance for the fiscal year ending June 30, 1902, was \$137.3186, or an increase of \$3.8856 over last year. The following table, compiled from the reports of the board of managers, showing the per capita cost of maintenance and the average cost per capita for general expenditures for the past twelve years, will illustrate by the variations the economy maintained during the period from 1893 to 1900, when the accounts and vouchers were supervised by this Bureau. The saving effected during this period, based on the per capita cost and the average number present, was \$2,483,308.04, an average of \$354,758.29 for seven years, or a total of \$285,866.98 more than the net expenditures for the whole establishment during the fiscal year 1894, with an average present of 15,601 members:

	Average present.	Average cost per capita for maintenance.	Average cost per capita, total expenditures.
1890.....	12,935	\$141.07	\$176.54
1891.....	13,961	139.50	174.13
1892.....	14,196	143.75	174.13
1893.....	14,661	140.95	164.04
1894.....	15,601	127.45	147.22
1895.....	16,480	115.80	133.79
1896.....	17,454	111.60	130.51
1897.....	18,173	119.23	128.63
1898.....	18,596	117.84	130.36
1899.....	18,814	128.97	155.92
1900.....	19,230	130.91	153.82
1901.....	20,016	133.36	152.23

The following is the appropriation account for the various branches for the fiscal years as stated:

Appropriations.	Certified claims.		Danville Branch, no year.	Mountain Branch, no year.	Sanitarium, Hot Springs, no year.	Salaries, 1898.	Pacific Branch, 1899.	Marion Branch, 1899.	Salaries, 1899.	Danville Branch, 1899.	North-western Branch, 1899 and 1900.
	Pacific Branch, 1897.	Clothing, 1897.									
Balance in Treasury June 30, 1901				\$215,000.00							
Amount appropriated	\$4.10	\$21.21		\$50,000.00	\$170,000.00	\$18.00	\$50.00	\$64.83	\$25.50	\$544.15	\$1,982.64
Treasury settlements			\$41,768.52	10,629.14							
Funds of J. M. Bermingham returned											
Total	4.10	21.21	41,768.52	575,629.14	170,000.00	18.00	50.00	64.83	25.50	544.15	1,982.64
Remitted to disbursing officers				200,000.00							
Treasury settlements		21.21									
Funds of J. M. Bermingham transferred to M. Harris			41,768.52	10,629.14		18.00	50.00	64.83	25.50	544.15	1,982.64
Covered into surplus fund											
Total	4.10	21.21	41,768.52	210,629.14	170,000.00	18.00	50.00	64.83	25.50	544.15	1,982.64
Balance in Treasury June 30, 1902			41,768.52	32,500.00							
Total	4.10	21.21	41,768.52	375,629.14	170,000.00	18.00	50.00	64.83	25.50	544.15	1,982.64
Appropriations.											
Balance in Treasury June 30, 1901											
Amount appropriated	\$54,252.98			\$9,234.24	\$31,829.27	\$22,038.05	\$13,251.84	\$7,650.82	\$5,945.95	\$3,411.43	\$11,153.21
Unexpended balance deposited	35.57							19.15			
Funds of J. M. Bermingham returned								4,833.20			
Total	54,288.55		24,451.00	9,234.24	31,829.27	22,038.05	13,251.84	12,603.17	5,945.95	3,411.43	11,153.22
Remitted to disbursing officers		42.00									
Paid on Treasury statements						97.39					
Treasury settlements			1,982.64				221.63		644.15		251.86
Funds of J. M. Bermingham transferred to M. Harris			64,244.55	9,234.24	31,829.27	21,940.66	13,030.21	7,667.27	5,401.05	3,411.43	10,901.36
Covered into surplus fund											
Total	54,286.55		24,451.00	9,234.24	31,829.27	22,038.05	13,251.84	12,603.17	5,945.95	3,411.43	11,153.22

Appropriations.	Central Branch, 1901.	Northwestern Branch, 1901.	Eastern Branch, 1901.	Southern Branch, 1901.	Western Branch, 1901.	Pacific Branch, 1901.	Marion Branch, 1901.	Danville Branch, 1901.	Salaries, etc., 1901.	Clothing, 1901.	Eastern Branch, 1901 and 1902.
Amount appropriated.....	\$7,461.08	\$298.90	\$1,022.03	\$7,665.45				\$997.71	\$210.88		
Treasury settlements.....	26,773.55	23,769.51	12,773.16	20,188.02	\$16,742.28	\$31.59		24,196.67	1,826.49	\$21,031.54	\$21,500.00
Unexpended balance deposited.....	3,428.67	1,756.63	3,461.52	2,351.51	1,470.61	4,570.65	1,574.09	3,705.12	1,826.49	1,392.38	
Funds of J. M. Bermingham returned.....											
Total.....	37,663.30	25,825.04	17,256.71	30,204.98	18,212.89	11,328.57	14,138.73	28,899.50	2,037.37	22,423.92	21,500.00
Remitted to disbursing officers.....	8,200.71	298.90	1,022.03	10,786.09	295.90		46.22	997.71	210.88		
Paid on Treasury statements.....	314.80				237.21		4.14			393.87	
Treasury settlements.....						235.10	60.72				
Funds of J. M. Bermingham transferred to M. Harris.....	3,428.67	1,756.63	3,461.52	2,351.51	1,470.61	4,570.65	1,574.09	3,705.12		1,392.38	
Total.....	11,944.18	2,055.53	4,483.55	13,137.60	2,003.72	4,805.75	1,685.77	4,702.83	210.88	1,792.25	21,500.00
Balance in Treasury June 30, 1902.....	25,719.12	23,769.51	12,773.16	17,067.38	16,209.17	6,522.82	12,452.96	24,196.67	1,826.49	20,631.67	
Total.....	37,663.30	25,825.04	17,256.71	30,204.98	18,212.89	11,328.57	14,138.73	28,899.50	2,037.37	22,423.92	21,500.00
Appropriations.											
Amount appropriated.....	\$698,828.00	\$296,250.00	\$296,250.00	\$281,950.00	\$361,250.00	\$365,700.00	\$264,000.00	\$278,150.00	\$296,010.00	\$55,844.00	\$300,000.00
Funds of J. M. Bermingham returned.....	74,732.58	74,732.58	35,005.38	47,175.61	41,281.84	36,203.04	29,006.82	51,098.38	23,840.35	8,411.53	12,043.71
Total.....	773,560.58	773,560.58	331,255.38	329,125.61	402,531.84	401,903.04	293,006.82	329,248.38	319,850.35	64,255.53	312,043.71
Remitted to disbursing officers.....	698,828.00	296,250.00	296,250.00	280,450.00	361,250.00	365,450.00	253,670.00	278,050.00	296,010.00	55,844.00	299,600.00
Treasury settlements.....				21,500.00		31.59					
Funds of J. M. Bermingham transferred to M. Harris.....	74,732.58	74,732.58	35,005.38	47,175.61	41,281.84	36,203.04	29,006.82	51,098.38	23,840.35	8,411.53	12,043.71
Total.....	773,560.58	773,560.58	331,255.38	329,125.61	402,531.84	401,903.04	293,006.82	329,248.38	319,850.35	64,255.53	311,643.71
Balance in Treasury June 30, 1902.....						250.00	298.41	100.00			400.00
Total.....	773,560.58	773,560.58	331,255.38	329,125.61	402,531.84	401,903.04	293,006.82	329,248.38	319,850.35	64,255.53	312,043.71

RECAPITULATION.

Appropriations.	Certified claims.	1899 and prior years.	1899 and 1900.	1900.	1901.	1901 and 1902.	1902.	No year.	Total.
Balance in Treasury June 30, 1901.		\$54.11		\$188,218.50				\$215,000.00	\$898,272.61
Amount appropriated.	\$25.31			53.57	\$17,656.05			620,000.00	\$,785,694.88
Treasury settlements.		648.37	\$1,982.64	19.46	166,991.69	\$21,500.00	\$3,197,892.00		24,162.00
Unexpended balances deposited.				4,833.20	23,711.78				166,611.04
Funds of J. M. Bermingham returned.							358,795.24	62,397.66	439,741.88
Total.	25.31	702.48	1,982.64	188,104.72	207,991.01	21,500.00	3,556,781.24	787,397.66	4,764,465.06
Remitted to disbursing officers.				44.70	21,858.44				\$,397,805.14
Paid on Treasury statements.	25.31			571.63	1,191.12		3,176,402.00	200,000.00	1,788.06
Treasury settlements.				2,526.79	60.72	21,500.00	21,531.69		46,619.10
Funds of J. M. Bermingham transferred to M. Harris.				4,833.20	23,711.78		866,799.24	62,397.66	439,741.88
Covered into surplus fund.		702.48	1,982.64	180,128.40					182,613.52
Total.	25.31	702.48	1,982.64	188,104.72	46,892.06	21,500.00	3,555,732.83	252,397.66	4,067,967.70
Balance in Treasury June 30, 1902.					161,166.96		1,048.41	536,000.00	697,217.36
Total.	25.31	702.48	1,982.64	188,104.72	207,991.01	21,500.00	3,556,781.24	787,397.66	4,764,465.06



The following shows the appropriation account for the aid to the State and Territorial homes for disabled soldiers and sailors.

Appropriations.	State or Territorial home for disabled soldiers and sailors.		Total.
	1901.	1902.	
Balance in Treasury June 30, 1901.....			
Amount appropriated.....	\$54,724.80	\$950,000.00	\$1,004,724.80
Treasury settlements.....			
Unexpended balance deposited.....	184,259.05		184,259.05
Funds of J. M. Bermingham returned.....			
Total.....	238,983.85	950,000.00	1,188,983.85
Remitted to disbursing officers.....	54,724.80	950,000.00	1,004,724.80
Paid on Treasury statements.....			
Treasury settlements.....			
Funds of J. M. Bermingham transferred to M. Harris.....	184,259.05		184,259.05
Covered into surplus fund.....			
Total.....	238,983.85	950,000.00	1,188,983.85
Balance in Treasury June 30, 1902.....			
Total.....	238,983.85	950,000.00	1,188,983.85

#### BOOKS, RECORDS, AND PAPER WORK.

When General Chaffee was detailed on duty in the Inspector-General's Department as a major the reduction of paper work in the Army was specially invited to his attention, but despite his forcefulness of character this incubus seems to have grown instead of diminished, and we find great tomes filled with longhand at almost every military center, while line officers in the fighting force feel hardly fairly treated when their clerks are taken to headquarters, and reports and returns are still demanded ad nauseam. The occasional refusal to furnish typewriting machines by which duplications might partly remedy the evil is, perhaps, regarded as not of sufficient importance to mention here. Progressive ideas on the line of clerical economy were evinced in some of the supply departments, like the ordnance depot at Manila, where the method of filing returns, use of postal-card reports and requisitions, and improved forms for invoice and receipt are highly commendable. I was also much impressed with the business-like method of copying and filing papers adopted on the cable ship *Burnside* by Captain Squier, and believe that instead of hand copying and delays some of these modern and accurate methods might well be adopted by other bureaus. Dispensing with books, as is done in the War Department, and using modern methods of manifolding ought to relieve the present burden somewhat and save time and money. It is believed that the book-record system might well receive the attention of the board on diminishing paper work of the War Department.

It is suggested that a form of cash book be adopted by the Ordnance Department as in the Quartermaster's and Pay departments, and its disbursing officers supplied with them.

Another apparently well-conceived scheme which came under my observation is that of having all ordnance returns of officers on duty in the Philippines undergo a preliminary examination before being forwarded to Washington. Under this system any irregularity or informality that is possible to correct may be corrected at once, and thus save much time in the administrative audit and give the accountable officer an opportunity, while the matter is fresh, to complete his

returns. The advantage of this preliminary examination must be apparent, and suggests the advisability of its extension to other branches of the service, while correspondence with Washington requires a quarter of a year for each answered letter.

The descriptive book of public animals is frequently reported to be incomplete owing to noncompliance with the requirements of A. R. 1146 by the invoicing officer. It is very important that a complete descriptive list shall accompany every animal transferred for its proper identification, as well as to complete the required records, and more attention should be given this duty by invoicing officers. There should be no exception in this regard from purchase to final transfer.

The following recommendations are deemed worthy of consideration. Lieutenant-Colonel Chamberlain (California) says:

In my inspection of money accounts during the past year and a half I have found that time books are frequently not systematically kept, and they are seldom regarded as being part of the permanent records. As in many instances they constitute the only original record of work actually performed, and as large amounts are disbursed on pay rolls the preparation and payment of which must of necessity at times be left largely in the hands of employees, there should be of permanent record data for checking the correctness of the rolls. The time books should, therefore, be systematically kept, their correctness certified to by the timekeeper, and they should be carefully preserved as part of the records. I recommend that instructions to that effect be issued to all disbursing officers, and that the same be embodied in Army Regulations.

Major Irons (Colorado) says:

Paragraph 229, Army Regulations, requires an order book and a letters-sent book to be kept at each post, and paragraph 271, Army Regulations, requires same books to be kept by each regiment. As all posts and regimental headquarters are supplied by typewriting machines, I recommend that the system used by Quartermaster's (A. R., 1343) and Subsistence Departments (Subsistence Manual) be adopted, viz: That letterpress copying books be used. By this method much clerical work is avoided and true and authentic copies of orders and letters, with copy of original signature, is preserved.

In many cases the typewritten extra copies being identical with the original should fairly serve for any temporary record. Greater use of the quadruplicating processes seems feasible.

#### UNIFORM.

In view of the publication of the new uniform and equipment regulations in General Orders, No. 81, Headquarters of the Army, July 17, 1902, recommendations or criticisms on the old are not in order, and are omitted. It may be permitted, however, to remark that the crease in the top of the campaign hat evidently collects more rain in the Tropics than when the crown is worn at its full height, either in the smooth way shown in the pictures of General MacArthur and General Hancock, or of General Fitzhugh Lee and certain cavalry regiments, which give it four indents at the top, and both these ways give a good air space upon the head in the hot hours; but both are prohibited by orders, though both are cooler and drier in the tropical field service. Why should the street style instead of the fighting style prevail? An experiment with clinical thermometers indicated that the hat was some degrees cooler with good ventilation between the sweat leather and hat.

Major Tutherly (Columbia) says:

As soon as the change of uniform is decided upon, every organization serving in the States and Alaska should have dress uniforms and parade in them at retreat. There should be an effort made to secure good company tailors and get the fit of clothing back to what it was five years ago. This pomp and ceremony is necessary to the service, and when we neglect it the service very quickly shows it.

## WAR DOGS.

In my annual report for 1900, an excellent description of the annual trials of the German war dogs for that year was given, which shows their utility in giving notice of the stealthy approach of the enemy.

The tendency, in the trackless jungle, of the guerrilla enemy to lie concealed and then spring upon our soldiers unawares with the bolo, or entirely escape attention, has been demonstrated in many instances, and has led to some suggestion that a small, silent war dog, such as the English lurcher or white Spanish terrier, might be particularly useful, both to reveal the concealed enemy and to increase security.

## HARD WORK IN ALASKA.

Maj. Tutherly (Columbia) remarks:

The stations and sub-stations have been discontinued until there now remain but six posts in Alaska. These are scattered over such an immense territory that it takes about all the open season of navigation to visit and inspect them. The means of transportation and connection are such as to cause delays at expensive places to live away from posts, making the cost of the trip much more than can be recovered by mileage.

The work in Alaska has been harder upon the Army than will ever be realized; not the pure work of soldiering, but that attending the building of posts, roads, and telegraph lines in this country, near the arctic circle, which a few years ago was thought to be uninhabitable except by the Eskimos. Troops have lived in tents while working on the telegraph line when the thermometer was 60 degrees below zero.

Though I know of no gun having been fired by troops against an enemy, affairs there have been judiciously controlled through the presence of troops till the Alaskan code could be put in operation by the civil authorities.

The building of posts, and roads and telegraph lines to connect them, have opened up the country and led to such developments that railroads are already contemplated, if not under way.

Agriculture, to some extent, is practicable in many parts of Alaska. Company gardens are practicable at all of the posts, and at Skagway and Valdez vegetables can be raised in abundance; so can they along the Yukon and Tanana rivers. The Jesuit priests have had good gardens for years along the lower Yukon.

The posts are practically completed, except at Skagway, where a one-company post should be built at once; and the telegraph line will probably be completed by January, 1903, connecting all the posts with the States and through to Nome, which is about 125 miles from Behring Straits. Service at these stations will consequently be different hereafter; still, the isolation and climate require that more be done for soldiers than in the States, and the increased allowance of clothing, the 10 per cent increase of pay, and the liberal commissary sales list should be continued. \* \* \* I would enjoin upon officers strict compliance with regulations concerning sales to any outside the Army; there are commercial stores near all the posts where civilians can trade.

## ALASKAN INDIANS.

The following remarks of Maj. W. R. Abercrombie, Thirtieth Infantry, on an extract from the report of the annual inspection of the post of Fort Liscum, Alaska, made September 5, 1901, relative to the condition of the natives of the Copper River country, may prove interesting:

So far as my observations extend these Indians were in about the same condition in 1884 as they were in 1901. Like all other natives of a low degree of intelligence, they are not thrifty, in so far as providing for their future wants are involved, when the present affords them an opportunity to provide for the future.

The annual run of salmon is, so far as my memory serves me, just as numerous as in former years. Game never was plentiful in the Copper River Valley, owing to the great depth of snow, as compared to the Tanana country.

I have tried during the last four years to make these people understand that if they want to eat the white man's "grub" they must work for it just the same as he does. In 1899 and 1900 I issued rations to these people. The first portion they ate was the sugar, then the other component parts, except the bulkier portion of bacon and flour. These they took in part, wasted part, and consumed a small portion. I am positively not in favor of issuing rations, for the reason that only what is necessary for immediate use will be consumed; the balance will be sold or traded.

The only Indians I know of that are at all thrifty are Gakona Charlie, Evon, and his brother of the Kulkana branch; Stockman, of the Klutena band, and Etna Billum, of the Lower River band.

#### CLERICAL FORCE.

To properly co-ordinate work so widely distributed and concentrate attention upon the lines most needed for the good order of the public service, requires alert and constant clerical work as well as the watchful care of the officers. The intelligent and assiduous labors of the clerks of this Department wherever stationed, so zealously performed during the past year, as well as for many previous years, deserve and receive my commendation. In their zeal they have not only wrought diligently throughout the appointed and prescribed hours, but they have, with cheerful alacrity, put in very many extra hours of hard work in order to keep abreast of the increased and increasing volume of business which new conditions have brought, and which threatened at times to overwhelm them—for they are too few in number. Perhaps a similar condition has existed generally throughout the Army, but probably none have felt the burden greater than these nor have borne it better.

It is recommended that this office be put on an equality with the other bureaus of the War Department, which have chief clerks at \$2,000 per annum. The chief clerk of this Bureau is compensated at the rate of only \$1,800 a year, the pay of a clerk of Class IV, and he is the only clerk of that class in the office. The importance of the duties, as well as the amount and character of the work performed by other clerks, some of whom are growing gray in faithful and efficient service at salaries far below their worth, would certainly justify the giving to this Bureau a chief clerk at \$2,000 per annum, and at least two additional clerks of Class IV, in order that it may be possible to compensate clerks of long and able and faithful service with pay somewhat commensurate with their merits and ability and efficiency. The claim of others, both in the Philippines and America, are also earnestly submitted for favorable consideration, and will be referred to further in this report.

The work pertaining to the Soldiers' Home, or to the public property, or to hundreds of millions of dollars disbursed would in each division of this office deserve fairer compensation for the clerk in charge.

Any movement looking to the retirement of public servants who have given long and faithful service, when their retirement can be effected at reasonable rates of pay and without expense to the Government, certainly deserves the hearty co-operation of all who can in any measure assist in bringing it about. No more deserving subject could engage the attention of our national lawgivers, whose action in the premises is necessary to make such a system of retirement effective and uniform.

## CLERKS FOR OUTSIDE INSPECTORS-GENERAL.

The need is as pressing now as ever before for furnishing inspectors-general at geographical headquarters with skilled and adequate clerical assistance, in order that they may the more fully and more exactly perform the duties devolving upon them, which seem constantly to increase from year to year with the growth of the country. To that end I renew the recommendation in my last annual report that Congress be urged to make provision (as therein set forth) in the next appropriation bill for the support of the Army for the clerical assistance now so urgently needed by this Department. The legislation proposed is along the same lines as that which has already been enacted for supplying clerks for the Pay Department at large. As the clerks of the inspectors-general are frequently directed to assist in general inspections, including inspections of paymasters' accounts, there appears no good reason why they should not be organized and provided for on a basis commensurate with the duties they perform.

The following is the proposed bill:

For pay of twenty-five clerks for inspectors-general, thirty-five thousand dollars: *Provided*, That hereafter the pay of clerks for inspectors-general who have served as such over fifteen years shall be one thousand eight hundred dollars per annum; the pay of clerks for inspectors-general who have served as such over ten years shall be one thousand six hundred dollars each per annum; the pay of clerks for inspectors-general who have served as such over five years shall be one thousand five hundred dollars each per annum; the pay of other clerks for inspectors-general shall be one thousand four hundred dollars each per annum.

For pay of fourteen messengers for inspectors-general, eleven thousand seven hundred and sixty dollars.

For traveling expenses of clerks for inspectors-general and expert accountant of the Inspector-General's Department, two thousand five hundred dollars.

Lieutenant-Colonel Chamberlain (California) says:

Owing to the peculiar technical character of the knowledge which a clerk must possess to render him proficient in the Inspector-General's Department and in the Judge-Advocate-General's Department, and owing to the fact that the inspector-general and judge-advocate of a department are seldom allowed more than one clerk each, it is respectfully urged that each inspector-general and each judge-advocate be allowed a clerk under regulations similar to those governing clerks in the Pay Department.

Major Reynolds (Dakota) says:

I renew the recommendation of my predecessor regarding the clerical work of this office, and his plea that the inspector's clerk be allowed to accompany him on extended tours of inspection.

In the Philippines. While the need of skilled and competent clerks is seriously felt everywhere by the officers of this department, it is perhaps more badly felt in the Philippines than in the United States, as was very forcefully impressed upon me during my tour of those islands. The need of competent clerks and stenographers was called to my attention at many places, and was specially mentioned by brigade commanders, inspectors-general, judge-advocates, and other officers. Indeed, General Bell urged upon me as a duty and as a due relief to the officers facing the enemy and already under the strain of the deadly character of the duties imposed upon them, to present the pressing need of stenographers and proper clerical assistance, so that in such scattered warfare where words were essential, the most rapid way of expressing, multiplying, and distributing them successfully

should be furnished as a matter of course to every officer on such important duty.

Maj. H. K. Bailey, inspector-general, Department of North Philippines, says:

The district and brigade inspectors have been busily engaged in inspecting the numerous organizations and stations within the limits of the command to which they are respectively assigned, and have performed their duties satisfactorily. They have encountered many difficulties in reaching the outlying stations, and have been compelled to avail themselves of all kinds of transportation, and in some instances have walked from one station to another. While this is one of the greatest obstacles to the effective and economical performance of their duties, the need of competent clerical assistance can not be ignored. The inspectors are the only staff officers dependent upon another department for the necessary clerks, although paragraph 95, Army Regulations, says: "They will each be allowed the necessary clerks and one messenger, who will be assigned by the Secretary of War." Nearly every inspector in the department has to do a vast amount of clerical work, which prevents him from giving the time thus consumed to more important matters.

Since so many officers are found feeling severely the additional strain of lack of efficient and capable clerks, perhaps consideration will yet be kindly shown them by naming for each one or more skilled stenographers and clerks, of whose services none but himself can deprive the individual officers, already so overworked. It is understood that Generals Sackett and Baird at times provided for certain official clerical work by individually paying for it; but this is not always possible at the front or outside of headquarters cities, nor is it either wise or fair to compel individuals to pay for Government work. It may be impracticable to get anyone who has not experienced the necessity for such assistance amidst the exigencies of frontier service to fully appreciate how necessary it is. In civil life one sees such conveniences given to men with far less responsibilities or difficulties thrown upon them; and under the appeals made to me by general and other officers I venture to submit the matter for such favorable consideration as can be granted to it.

#### TIME TEST OF COMMUNICATIONS.

During the tour in the Philippines, as a test of the facility and speed with which communications between various points in the islands are forwarded by the postal authorities, more than forty communications were sent, from various points in various islands, to as many officers stationed in the different islands, with request that the replies be sent direct to Manila. Forty-one replies were received at Manila, and from these it is found that an average speed of a little more than 35 miles a day was made in forwarding the mails throughout the archipelago. The extremes were—132½ miles a day for the fastest, and about 5 miles a day for the slowest. Considering the many unfavorable conditions prevailing, it may be that an average of 35 miles a day is as good as can at present be expected, though it is certainly unsatisfactory.

#### OBSERVATIONS IN THE PHILIPPINES.

During my tour in the Philippines it was evident on all sides that the Army, as a whole, was laboring patiently and faithfully to solve the many vexing problems continually presented to it. The difficulties encountered and the hardships endured can never be fully appreciated by anyone who has not been on the ground and observed the daily life of officers and men, 7,000 miles from home, cut off from all home

influences and associations, living in communities either openly or secretly hostile, depending almost entirely for their subsistence upon the commissary—where one is always afraid to take even an ordinary drink of water without ascertaining first whether it has been cooked.

It has been claimed that gross and repeated violations, by the insurgents, of the laws and customs of civilized warfare had been put up with without retaliation, in the hope that they would see the error of their ways. This forbearance on the part of the United States Government seemed to lead to a belief that we were weak and afraid. Elections in towns occupied by our troops were dictated by insurgents in the mountains; laws passed by native municipal authorities condemning the insurrection were not sincere; active and open sympathy with Americans was rarely shown by native officials; presidentes and their officials and wealthy natives had to be continually watched; local offices were accepted and used as a means to help insurgents; assassination was resorted to; U. S. Army uniforms were used by the enemy without distinctive mark; infernal machines and poisoned arrows were used; operations were conducted by insurgents under the guise of amigos and without commission; telegraph lines were cut and bridges destroyed by those who had sought and were enjoying our protection; and the inhabitants in certain places had risen to attack towns in which they lived in security. Add to this the continual "hiking" through the jungle, crossing of swollen streams, absence of roads and bridges, the steady downpour of the rainy season, and the heat of the tropical sun, and we will have a partial statement of some of the things endured. Critics at home may sometimes search for epithets to apply to our general officers, but these officers are no less kind-hearted than their critics, and were anxiously mindful of the sufferings which necessarily fall upon the innocent in warfare as well as the guilty, and were devising means by which the poor might be cared for and fed. There is reason for gratification that our fellow-countrymen have confidence in their Army, and many know what war is: and the reaction has not been sluggish.

In addition to the difficulties which surrounded officers and men in the Philippines, there was the continual anxiety for the health and happiness of those at home who were dependent on them. And their own health or protection from nameless sores and odd diseases not necessarily fatal could be recklessly disregarded like unwonted sameness in food and perpetual heat, but it counts in the day's work. That the former soldier's hat was 10 degrees hotter than one correctly ventilated, weighed no more with him than the citizen who in a light straw saw him march past loaded with ammunition, weapon, and food.

That the Army performed its duties well and bore its hardships uncomplainingly is well known to all who have kept in touch with it since the opening of the Philippine insurrection. In fact, it has only done those things which we expect of it and which we will continue to expect of American soldiers.

The crying need of the soldiers now in the Philippines is quarters; and nothing will add more to the comfort, discipline, and efficiency of officers and men serving in that division than the construction, as rapidly as possible, of commodious quarters and barracks for our troops, on sites which will afford ample room for proper instruction of large bodies of men in drill and target practice. These barracks are needed now by the troops. Should the conditions in the islands so

improve that they will not be needed for troops at some future time, they would be easily convertible into buildings for the civil government or into hospitals and schools, or other necessary public uses required under our American system, if not when the church was the center of government, and the largest building in each town was the church and the parochial domicile called convent by us.

Any construction undertaken by the Government in the Philippine Islands should be of such magnitude and architectural beauty as to be an object lesson to the native to impress him not only with the wealth and dignity of the United States, but also with the permanency of our occupation of those islands. We should strive to bring the native up to our good standard rather than that we should sink to his poor one. Flimsy nipa barracks should not be constructed except in places where they are needed for mere temporary shelter. The flimsiness, discomfort, vermin, or filth sometimes characterizing such huts to be appreciated must be endured.

The reorganization of the Army in accordance with the provisions of the act approved February 2, 1901, necessitated the promotion of many officers to the new regiments who had already served a considerable time in the Tropics. As some of these regiments were organized immediately in the Philippines and others were sent there shortly after being organized, it followed that many officers began again a new tour of tropical service with their new regiments and thus lost the opportunity of returning to the United States with the old regiment when it was withdrawn. That this condition is unavoidable the officers concerned well know. It is hoped, now that hostilities have ceased, that some system may be devised by the War Department which will equalize the tropical service that may be required of any branch of the service among the officers of that branch. When each one feels that he is bearing only his equitable share of the burden he will bear it cheerfully, no matter how heavy it may be.

#### NATIVE SCOUTS (PHILIPPINES).

The act of February 2, 1901, reorganizing the Army, authorized the President to enlist natives of the Philippine Islands for service in the army there as scouts. Under this authority 50 companies of 100 men each were organized, and substituted to some extent for the squadron of Philippine Cavalry. There were reported 4 companies of Tagalos, 11 Macabeebes, 16 Visayans, 13 Ilocanos, 4 Cagayans, and 2 of Bicol; numbering at date of inspection 4,140 men, with 4 companies to hear from.

The reports received show that the service and conduct of these scouts have so far been satisfactory, with one or two exceptions. They are said to be, however exceptional to the generality of native auxiliaries, fairly faithful even when operating against their own people. While not questioning their loyalty, it is thought that they should not, upon such occasions, however, be too greatly relied upon, unless in the presence of an American officer or noncommissioned officer of some force and discretion.

Colonel Sanger (Division of the Philippines) says:

They are temperate and neat in their habits, and there have been no desertions. With but one exception, company commanders report them faithful and trustworthy, and all but four of the commanders are of the opinion that they have much military aptitude, and learn rapidly. \* \* \*



The army ration is generally recommended with an additional quantity (one-third) of rice as entirely suitable, as is also the army clothing. The increased clothing allowance was very much needed. In the field they do not require mess kits or any clothing except what they wear, and the most appropriate weapons are the carbine and bolo. The service rifle is considered a trifle too heavy. \* \* \*

Many company commanders report that the scouts have an unmistakable pride in their vocation, and that under proper management they become excellent soldiers. These facts suggest future possibilities of organizing a native contingent sufficient to largely substitute our own troops. By a skillful combination in the same regiment of three composite battalions, very much as is done in India, under command of army officers, there would be very little danger of mutiny, and we could maintain a force, which in conjunction with a reasonable number of regulars, would thoroughly subserve the military purposes of the Government.

**Major West (Fifth Separate Brigade) says:**

The companies I have inspected have been found to be well disciplined, well drilled, and the men proud of their profession. They are apt and efficient, and willing to drill and to work. \* \* \* I believe the Visayan companies are true friends of the Americans and can be depended upon when needed.

**Major Eastman (Fourth Separate Brigade) says:**

I am of the opinion that the natives of these islands will prove to be efficient soldiers, especially so in this climate and country, if justly used and handled with patience and firmness. \* \* \* In my opinion the native soldier should have as much soap and vinegar in his ration as a white soldier. He uses a great deal of vinegar on his food when he can get it.

The native should not be required to use, under any circumstances, the leather shoes. Cloth or canvas are more suitable if provided with a flexible sole of felt or some similar material.

**Major Pettit (Seventh Separate Brigade) says:**

They learn the mechanical parts of drill instruction quickly, and attached to white troops in the field, armed with bolos, they are very useful in cutting the way, in preparing hasty shelter for troops, etc., but as a fighting force against their own people I don't think they have much value.

Is there no suggestion of similar employment for native Hawaiians in our service, who are a handsome and soldierly people needing employment and now under our flag?

#### OPERATIONS AGAINST THE MOROS.

**Major Pettit (Seventh Separate Brigade, P. I.) reports:**

The Lake Lanao expedition was organized at Malabang in March, 1902, Colonel Baldwin, Twenty-seventh Infantry, commanding. It consisted of 7 companies of the Twenty-seventh Infantry, 2 troops of the Fifteenth Cavalry, and a detachment of the Seventeenth Infantry, drawn from Cottabato. Later, May 1, 1 battalion of the Tenth Infantry, under Major Hoyt, joined at Malabang. A trail was constructed from Malabang to Gadungan, about 19 miles.

A few unimportant engagements with hostile Moros were had in the vicinity of Gadungan and Ganassi on April 19, 1902. Negotiations were opened with the hostile Moros, but to no effect. The affair culminated in the battle of Bayang on May 2, 1902, beginning at 12 m. and ending with the surrender of Fort Pandapatan at 7 a. m. May 3, 1902. The troops engaged were 7 companies of the Twenty-seventh Infantry; Twenty-fifth Mountain Battery, U. S. Artillery, Captain McNair. The troops behaved with great gallantry under most trying circumstances. About 300 Moros were killed, and American loss was 1 officer, 8 men killed, 43 wounded. \* \* \* The moral effect of the shrapnel fire was evidently great, but it did not do great execution.

The question of supply was difficult. The trail became very bad in places. The pack trains soon began to suffer, due to long journeys (18 miles), and poor packers. Many of the mules were in horrible condition from sores and injuries, and will never be fit for service again as pack mules. Four companies of infantry and many Moros were constantly at work on the trail to keep it in a passable condition.

Camp Vicars was established the day after the fight, and the wounded were transferred as rapidly as possible. A new road, known as the Macardar trail, has been opened from Malabang to Camp Vicars. An inspection of these posts has been ordered, and will be made in a few days.

As Mindanao may have special interest for some time to come, a few excerpts from a condensed inspection report may illustrate certain phases of the soldierly condition there at that time. Whether the policy continues as instituted by such excellent soldiers as Generals Otis and Bates in that region or a more aggressive one be adopted, evidently the requirements of the scene and character of the inhabitants give marked peculiarities to the problems before us.

## TUCURAN.

Second Lieut. W. E. Persons, Twenty-seventh Infantry, is the only officer for duty at this post. The road from the beach to the post is in very good condition. Some work has been done on it at intervals, but the heavy rains have washed it out badly. All of the water used at the post has to be hauled over the road daily, and all of the supplies also.

The quartermaster's storehouse is a small nipa building and very insecure; one of the two small houses built for officers' quarters—they were very badly constructed.

The present garrison of 80 men is sufficient. The care of the telegraph line across the trocha is its most important work. An ultimate saving of labor and annoyance would be gained by clearing the line of timber for 100 feet on either side.

## PARANG.

The barracks at this post are in very bad condition. The roof is about the only good part.

The Moro situation is apparently unchanged, and the strength of the garrison is sufficient. The appearance of the troops at inspection was not good. They had not sufficient clothing to keep themselves in presentable dress at formations.

## MALABANG.

Harness oil is urgently needed. They have had none since early in May. The harness and pack-train equipments deteriorate rapidly without plenty of oil.

At least 150 tents will be needed in the next three months.

The ordnance officer at Malabang should have 1,000 each of meat cans, knives, forks, spoons, tin cups, haversacks, and belts to replace those in the hands of troops as soon as the road is completed.

A new nipa hospital similar to the one at Parang should be built for the base hospital. This would release valuable space for storerooms in the fort.

The supply of clothing is insufficient, and company commanders complain that they can not get clothing they need.

Target practice is badly needed. The Twenty-seventh Infantry and Fifteenth Cavalry have had practically none since their organization.

The fatigue, escort, and guard duty at this post is severe on the men.

## TRAIL.

\* \* \* The quartermaster should be able to deliver all necessary supplies, and at the same time give a fair percentage of his teams opportunity to rest and refit.

The telegraph line is being repaired gradually. As soon as a piece of road is completed the line is put in shape along that part.

The troops along the trail are generally in good health and spirits. They have not sufficient tentage, and only old clothing.

The facilities for bathing, except at the river, are very poor. The rainfall for 27 days last month was 41 inches.

## CAMP VICARS.

\* \* \* The question of water is the only obstacle, but at present the water is some distance from the camp and Captain Pershing wants cans and transportation for hauling water.

\* \* \* Captain Morrow thinks it worth while considering the question of having Chinese sawyers to move along the trail, leaving the lumber along it for transportation.

The camp has partially recovered from the storm, but the men claim to have lost a good many articles of clothing and other effects.

The threatened epidemic of dysentery has been averted by boiling the water, and the sick report has been reduced to 32. Two suspect typhoid cases were reported.

Troop A, Fifteenth Cavalry, has 90 serviceable horses; lost 6 from glanders. Troop L, Fifteenth Cavalry, has 68 horses, 10 unserviceable; lost 8 from glanders, and has 10 suspects now.

In the infantry battalion no officers appeared with swords.

The company commanders claim that they have great difficulty in getting clothing for their men under the present system of issue at Malabang.

They have not sufficient kitchen utensils, especially camp kettles for boiling water and cans for keeping it in after boiling. As yet the hospital has no stove, and two organizations are without stoves.

Division Orders, No. 183, in respect to uniform (blouses), not carried out at any of the posts.

#### AMERICAN TROOPS AND THE FILIPINOS.

There has been a good deal of discussion in the public press and elsewhere concerning the treatment of the native Filipinos by the American troops, and some rather serious charges have been brought against the Army, which, however, have not been substantiated. The conditions of war in the Philippine Islands have been, perhaps, unusual, and from reasons arising from the conduct of the Filipinos themselves, who, as the authorities agree, are sometimes extremely cruel and treacherous. In the conduct of the American Army toward them the exercise of unexampled patience is claimed, and the humanity of the troops engaged has no parallel in the history of dealing with Asiatics.

With what novel duties in both civil and military administration, and in the terrain and character and environment of the war, on the opposite side of the globe, have our soldiers been brought in contact? The world has felt the current of those distant affairs, and our nation may not be fully conscious of the awakening. Who among us on the day of the battle of Manila Bay were familiar with the names of men who had faithfully devoted long lives to our service, not without some dangers by land and sea—and now how the character of the nation has been weighed in the balance according to their words and deeds. Merritt, with youthful fame in the Shenandoah and the Great Plains, appears in his maturity on this last scene; Otis, of honest judgment, far-reaching insight, and a cormorant for work, bearing his honorable wounds with all modesty; Bates, the gentleman and soldier, the right hand of his chief in diplomacy or emergency; Wheaton, the thunderbolt and embodiment of military ardor; MacArthur, judicious, courageous, masterful, and broad minded; Hughes, acute and resolute amidst an attempted Moscow and in the rugged places of Samar and the middle islands; Funston, who won his fame amidst the hardships of the farthest front; Young, forever in the lead and seeking the vitals of the enemy; Smith, tireless and aggressive; Bell, courteous and recklessly audacious, the prince of the advance guard; Lawton, "*droit et loyale*," who baptized that land with his blood, and wrought famously and kindly on both hemispheres, doing easily and without undue sacrifice whatever was most needed or most difficult; Chaffee, whose sterling worth has been displayed in the Old and New Worlds, wherever American arms have brought her principles, and won success either in the whirl of repelling deadly tyranny from the Antilles or in bringing safety to the beleaguered legations from the bloody Manchus of the Forbidden City; Davis, whose omnivorous industry and knowledge have wrought

memorable monuments in the form of city government and great memorial structure, as well as in his profession; Grant carried from Porto Rico to the Far East a name Americans regard as the epitome of unpretentious and admirable service, and has shown unwearied work and fairness in every scene; and Baldwin, the last to win a star for worsting the enemy in fierce fight, in a career filled with such bearing as brought two medals of honor for soldierly courage to him alone. When the rewards of service go to men like these the heart of our Army is elate. These are not half the names, nor are all of them as well known to their fellow-countrymen as they deserve. But these are among those whom I met or the results of whose work I witnessed during the past year. Famous regiments which fought or endured amidst those scenes will cherish the occasion in their regimental traditions. And young men who hereafter take the oath to serve their country will recall how faithfully and well she was wont to be served when the old regiment first went down to the sea in great ships. The Army of the past has again proved here the mettle of which it is made, where the Navy and civil authorities have writ their names in bold characters among the immortals, and the Army of the future is taking step, and the spirit will go marching on still, as always, loyal and true and "steadfast to the end." There seems to be something pathetic as well as majestic in the attitude of the Army where it has done and deserved so well. Unknown it entered upon its duty there, and but half known it returns, its merits sterling as of yore.

The officers of the inspection corps in the Philippines substantially agree that extreme and frequent cruelty has not been habitually practiced, and that all well-founded complaints of excesses have led to trial and punishment of the offenders. Colonel Sanger (now brigadier-general of the line), who during the past year was inspector-general of the Division of the Philippines, says:

I am not inclined to believe that many of our regular officers and enlisted men have resorted to harshness and cruelty in dealing with the natives.

Major Eastman (Fourth Separate Brigade, Philippine Islands) says:

Judging from careful inquiry at every post in the brigade which I have visited, except here (Nueva Caceres), the relations between the natives and the troops are very pleasant. Some complaints have been made of abuses and assaults and crimes, but commanding officers, without a single exception, are zealous in investigating all such complaints, and, when there is a reasonable possibility of a successful prosecution, charges have been preferred and the accused men tried and severely punished. In no case have I heard or known of any disposition on the part of officers to condone the offenses of men under their command. On the contrary, they are earnest in their efforts to prevent and punish all crimes committed against the natives.

Major West (Fifth Separate Brigade, Philippine Islands) says:

The relations (between the Americans and natives) are usually pleasant, and the people almost invariably desire to have the troops stationed among them to protect them from ladrones. The money spent in the towns by the army is quite a consideration for the natives. There have been a few isolated cases of abuses of the natives by enlisted men, for which the latter have usually been tried and punished. Such occurrences are liable to occur in any country where soldiers are stationed.

#### INSPECTION.

It is believed that only good and beneficial results can flow or has proceeded at any time from the establishment by law of every detail of inspection duty appertaining to the military establishment, and regularly assigned, under our republican system, to our legally established Inspector-General's Department. Surely there can be nothing

more important than the recognition and encouragement of excellence and suppression or noting of errors and abuses in the transaction or administration of military affairs, both during the years of training and the days of campaign and battle; and this duty has devolved upon the inspection corps of our Army for more than one hundred and twenty-five years—since almost the inception of the American Revolution. The manner, and to a large extent the details, of inspection duty were recited and imposed in the beginning by specific acts of the Continental Congress and the results were beneficial beyond question, so that few names are more familiar in our early military history than that of Baron Steuben, the Inspector-General during the training and trials of Valley Forge and a commander in the Virginia campaign preliminary to Yorktown. Indeed, so highly was inspection prized, owing to what it had indisputably accomplished in the Revolutionary war, that in 1798, when this country was apparently on the verge of a war with France and a large army was authorized, Congress provided that its Inspector-General, Alexander Hamilton, should be a Major-General, and much that is excellent in our military system is of his devising at that period.

Our Army antedates the adoption of the Constitution in 1789, the artillery company, which Alexander Hamilton commanded as captain, being still in the service; and its inspection department has habitually existed as a separate corps: though for a while almost every organization disappeared and whimsical experiments were attempted, like forming a Legion. The most familiar name on the roll of inspectors-general, when the Spanish and Filipino war broke out, was that of Gen. Henry Ware Lawton, who was not so fortunate as to be made a general officer in the Regular Army, but whose indomitable energy and sterling soldierly character attracted the attention and admiration of his fellow-countrymen, and enabled him to attain the highest rank given as a volunteer officer.

That such a corps of inspectors-general is desirable, and should always exist, if the best results are to be secured, is doubtless fairly apparent to all in our country having experience in field service in war, and therefore are familiar with military affairs. It continues to perform the inspections of the Army and its affairs and conduct which were required by law in the Revolutionary war, and those required in addition by subsequent regulations; as, for instance, the act of March 3, 1825, which provides for the inspection of property that is to be eliminated from the public service; and the act of July 28, 1866, which provides that the Inspector-General's Department shall designate the articles to be kept for sale by the Subsistence Department; the act of April 20, 1874, provides for the frequent inspection of the money accounts of disbursing officers of the Army; and the acts of March 3, 1888, and August 18, 1894, which provide for the inspection of the Soldiers' Homes. The inspection of millions of articles, and disbursements amounting to hundreds of millions of dollars, and the universality of the inspection of every place, thing, and command may make these duties important enough in themselves. And all these inspections have been necessarily left open and elastic enough to meet every emergency and be felt in every sphere of military activity. And our remarkably perfect Army demonstrated the excellence of the inspection. This is believed to be the proper method in a free country, and no other method of inspections can produce better results nor

better suit the habits of freemen. It has proved, during all the heroic periods of American history, flexible enough to meet every demand, as well as possessing intact the impartial inflexibility of a fixed law, as all army duties do which have immemorial precedent to mold and guide them in peace and war. When the vital and important duties of inspection are absolutely imposed by law and provided for as the recognized and only specialty of an established corps, under no circumstances can they be evaded or rendered nugatory by individual whim or caprice; as might possibly be the case otherwise, especially at times when corruption becomes rampant. That they should be and are imposed by law and the customs of war in like cases seems so axiomatic as scarcely to require any extended argument. That the Treasury officials also audit the accounts and the local commanders make weekly or monthly inspections of the troops but supplements this annual or frequent work of ours, so that by the mouths of two witnesses every matter shall stand: nor is there any prospect of the Army being overtaken nor made too good for our country by the united efforts of all to perfect it.

Important as it is, however, that inspections should exist as now provided for by law and orders, this is not more important than that the inspecting officers should compose a separate and distinct department of the Army, as now, tied wholly to neither the line nor staff, so that inspections may be invariably fairly made, without bias, prejudice, fear, favor, or undue influences of any kind. Secretaries of War, commanding generals of the Army, and others in high authority in military affairs, from the days of Washington until now, have steadfastly maintained this view; and what has been said by them has been sufficiently repeated and accepted by the best of our statesmen and soldiers. Should, unfortunately, this well-approved method be abolished, it is evident that neglects and abuses now minimized may grow to impair the efficiency of the service or stain the honor of our arms. Such is the lesson of experience.

If inspections are to be made with thoroughness and a full and fair presentation of the result in all cases, then this can not be done more faithfully and effectually than by the Inspector-General's Department now, with the duties of the Department as originated under George Washington and reestablished by Alexander Hamilton and still clearly recognized by law and orders and by the best and honest interests of the public service. The effort to keep it in the highest state of perfection is constant, and something is pretty widely known as to what it accomplished in Cuba and in the Philippines, and in many points between; so it justly touches both the just and the unjust, as sent by higher authority. But of course not a moiety of the work done nor the difficulties of it can be widely known nor fully appreciated. Still, such as it is and has been, it must speak for itself, and there is a comfort in the feeling that the best soldiers have appreciated it best. Have these soldiers not been worthy?

In the battles which came upon us from such an unexpected quarter four years ago, and have run their course with the sun, even to the farthest East, it may be permitted our corps of inspectors-general to remember that everywhere it had a representative at the farthest front to share the dangers and hardships and witness the admirable bearing and heroism of our Army, which occupied the place it did and performed the work assigned, not from any whim of its own, but because it was the nation's formally expressed will that we should go

there in the cause of our country. In the death-roll that ensued no one found a warmer place in the hearts of his fellow-countrymen or struck a more responsive chord than the one taken from our list, and perhaps he may justly lead all others of the Army in that day when, recalling this epoch, our country counts her jewels. The nation knows our devotion to her.

Respectfully submitted.

J. C. BRECKINRIDGE,  
*Inspector-General.*

The SECRETARY OF WAR.

## APPENDIX.

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[Extracts from reports of officers of the corps.]

### POST EXCHANGE.

**Colonel Burton (Cuba) says:**

They have been a great comfort to the troops, notwithstanding the adverse criticism of the change wrought by recent legislation in dispensing with the sale of beer.

**Major Tutherly (Columbia) says:**

I think it is being demonstrated that if the present exchange regulations are carried out with the same business energy that was exercised when the sale of beer was authorized, the exchange will serve a better purpose than the old regulation provided. Not only should the sale of intoxicants be prohibited on Government reservations and transports, but also gambling, and I think that paragraph 672, Army Regulations, relating to gambling by disbursing officers should be strictly enforced.

If either officers or men gamble outside, it is probably not advisable to take cognizance of it, but in a post or upon a transport it is highly demoralizing, and from a business standpoint it should be prohibited.

**Major Reynolds (Dakota) says:**

I am inclined to the opinion that the abolition of the beer feature in post exchanges has not materially increased the number of trials by courts, nor called for other extra disciplinary measures. As for the post exchanges, they are fulfilling their purpose and making money.

**Major West (Fifth Separate Brigade, Philippine Islands) says:**

The canteen has not been in operation since I have been in the Philippines, so I have no means of judging the effect of its abolishment here. Beer is sold for 20 cents a bottle here, and the same beer is sold for 10 cents in the United States; wine is not drunk much by soldiers in any country. There is some drinking of "tube" and "bino." They are vile liquors. The former produces dysentery and the latter insanity. There is no opium smoking among soldiers of consequence. To avoid these habits being fastened on the American troops, short-term service here is the most effective remedy.

**Major Irons (Colorado) says:**

The regulations for post exchanges need revision, especially as to the amounts to be paid on entrance, the amounts due them on dividends, and amounts due on withdrawal.

At one post in this department several organizations joined the post exchange, taking the actual strength of companies at date of entrance, as specified in paragraph 19, post-exchange regulations. Upon withdrawal they desired the same strength to



be considered as upon entrance, though each of the organizations had lost by discharges about 40 men. It was claimed that the organizations had joined on a basis of actual strength and should go out on a basis of actual strength.

To avoid any such trouble and to allow the representatives of organizations (who are personally responsible for debts, etc., due by exchanges) to manage the business, I would suggest that a paragraph be inserted that would allow of this liberty, and yet would prevent disagreements such as mentioned above.

The paragraph might read as follows:

"The representatives of organizations establishing a post exchange will make agreements as to method of entrance and method of withdrawal, and also as to method of divisions of dividends.

"Any new organizations desiring entrance to an established exchange will abide by these agreements, or, if all owners are willing, will make such agreements as they deem just and equitable."

Major Eastman (Fourth Separate Brigade, Philippine Islands) says:

"Effect of abolishing the canteen." It drives the soldier to the outside saloon and dive. When his money is all gone, he then takes to drinking vino and other native drinks, and that is fatal to his efficiency as a soldier. He is soon dead or dishonorably discharged.

Colonel Sanger (Division of the Philippines) says:

Notwithstanding the large number of stations and troops there has not been, as far as known, a single post exchange in the division. During the year small confectionery shops have been established in fifteen companies for the sale of pies, cakes, cigars, cigarettes, soda water, etc., and it is presumed they have contributed somewhat to the comfort of the men. The only reason given for not opening post exchanges generally is the prohibition on the sale of beer, or in other words the abolition of the canteen, which, as it was the chief source of revenue of the exchange, is indispensable to its maintenance, at least in the Philippine Islands. Congress having disposed of this question it seems hardly worth while to discuss it further. Still as we are not without hope that once the social and professional condition of our soldiers in the Philippines is thoroughly appreciated at home, Congress may be induced to again make the post exchange a possibility by removing all restrictions on the sale of beer and light wines, the following facts are presented:

With the termination of organized opposition to the Government military operations have also ceased in the Philippines, and from a life of great activity and excitement, the enlisted men in a large majority of stations have entered on a life more or less sedentary and only relieved by such professional exercises as the routine of a garrison life renders necessary, mainly guard duty and drill.

From the monotony of this existence there is no possible escape in 90 posts out of a 100, and the enlisted man becomes in a far greater degree than in the States the absolute victim of his environment. This it is needless to say is not conducive to any great display of the more exalted virtues. Rendered more or less indifferent by the climate, deprived of pleasant or exciting recreations, amusements, or sport, and without the means of obtaining them, lacking frequent and regular communication with the outside world, the social life of our soldiers in the Philippines, except in a few places, is absolutely without attraction, and as a result they consort more or less with the natives and soon adopt some of their habits, with no resulting benefit to the natives or to themselves. It is not necessary to go into particulars; to the average person of intelligence who has visited the Philippines they are very well known; they confront the soldier at all times in what to him seems a very attractive form, and he yields to their influence, because there is no alternative, save the deadly monotony of some dilapidated convent or nipa barracks, devoid of everything except the habiliments of his profession. It is idle to speculate on this subject, or to say what he ought to be; the American soldier requires a healthful outlet for his superabundant energies, or he will find one of a different kind, and all officers who are responsible for his discipline and training should endeavor to protect him as far as possible against the loss of those habits of self-respect which have made him well-nigh invincible in battle and won for him the admiration of the world.

Until quite recently the post exchange with its well-regulated canteen has been one of the instrumentalities through which this has been attempted, and if, as is believed, it has exercised a wholesome influence on our soldiers at home, in the Philippine Islands it would no doubt prove to be a mental, moral, and physical benefaction.

There is no fear that the sale of beer would initiate or induce habits of intemperance, as the following facts obtained directly from the companies serving in the division, December 18 (1901), will show; nor can the post exchange be maintained without it:

Number of men who used vinous, malt, or spirituous liquors at date of enlistment.		Number of enlisted men who used vinous, malt, or spirituous liquors in moderation at date.	
Number of companies.	Number of men.	Number of companies.	Number of men.
60	100 per cent.	38	100 per cent.
130	Between 90 and 100 per cent.	129	Between 90 and 100 per cent.
58	Between 80 and 90 per cent.	88	Between 80 and 90 per cent.
26	Between 70 and 80 per cent.	43	Between 70 and 80 per cent.
20	Between 60 and 70 per cent.	19	Between 60 and 70 per cent.
12	Between 20 and 60 per cent.	11	Between 20 and 60 per cent.
46	No data.	14	No data.
342		342	

Number of enlisted men who drink to excess habitually.		Number of enlisted men who are total abstainers	
Number of companies.	Number of men.	Number of companies.	Number of men.
71	Between 10 and 35 per cent.	72	Between 10 and 35 per cent.
145	Between 1 and 10 per cent.	173	Between 1 and 10 per cent.
112	None.	83	None.
14	No data.	14	No data.
342		342	

From these figures it is quite apparent that a very large proportion of the men used stimulants when enlisted, and have used them in moderation since, and this is probably the case throughout the Army.

On the other hand, quite a number habitually drink to excess, and this number will probably increase if the men are obliged to resort to native liquors in order to satisfy what to many of them is a perfectly natural craving. Such a result would be most deplorable, as is evident from the following report on this subject prepared by Maj. Charles Lynch, of the Medical Department, who from his long and varied service in the Philippines may be considered a most competent judge:

"The most used of these drinks is "vino" or "beno," as it is more commonly called. This is usually made from "tuba," which is the juice obtained from the buds, unripe fruit of the nipa palm. "Tuba" contains a small proportion of alcohol, is not unwholesome, and resembles somewhat the pulque of Mexico. Like that liquor, it rapidly undergoes an acid fermentation, and can only be drunk or utilized for the production of "vino" soon after collection. For this reason distilleries are established in districts where the nipa palm grows, though redistillation is carried on in Manila and other large cities.

"The primary distillation is performed in a very simple still, consisting of nothing more than a boiler and worm; in order to obtain the greatest amount of "vino" from the "tuba," a hot fire is made under this boiler, and the worm is short. Distilling in this manner, not only the various alcohols are carried over, but also water, so that the resulting distillation contains not more than 20 per cent of alcohol. This alcohol consists of ethylic alcohol, which is the alcohol in good liquors, but in addition, methyl alcohol, amylic alcohol or fusel oil, and furfural, with other alcohols in less quantities.

"In certain places where "nipa" does not grow, "vino" is made from sugar, or it may be made from cocoanut juice; practically the same process is adopted, and the resulting liquor is little, if any better.

"When the impure "vino" is redistilled, a better liquor may be made; that is, a mixture of vino containing better alcohol and water is produced. It is impossible to make good liquor, nor is any attempt made commercially to produce a very good mixture. "Vino" is drunk as it comes from the still, or anise may be added to produce anisado. Some mallorca and carbachal are also made; these two are sweet liquors, but do not vary in their pernicious properties from "vino;" they are hardly known to the soldier.

"In Manila "vino" is also used mixed with the extract of juniper to make gin, with the extract of rum to make rum, with the extract of whisky for whisky. All are equally injurious, as they contain in large quantities alcohols other than ethylic alcohol.

"The effect of drinking any of these liquors is much worse than from liquors containing ethylic alcohol. The pleasant effects of good liquors are produced in great part by the various ethers and esters, which only result from the aging of the liquors or some of the well-known processes that produce similar changes. Intoxication is also different from that produced by good liquor in that in many instances a maniacal excitement results even with homicidal or suicidal tendencies. The after depression is much more severe than from ethylic alcohol, and has undoubtedly resulted in cases of melancholia. In some respects repeated indulgence has an effect more like morphine than alcoholic intemperance, the drinker seeming to lose all sense of responsibility and decency; habitual indulgence is also unquestionably followed by insanity in predisposed cases.

"The effects on the physical condition of the drinkers are severe, usually inducing inflammation of the stomach and cirrhotic changes in the liver and kidneys.

"There is some difference of opinion as to whether men having become habituated to this vice prefer "vino" to beer or other liquors. In my own opinion the reason that they continue to drink "vino" is its cheapness, from 5 to 13 cents, Mexican, a quart, and it is believed that if beer was supplied at a moderate price, not only soldiers would not acquire this practice, but having acquired it, would generally abandon it for the use of milder and less harmful malt liquor."

The average charge for a bottle of beer throughout the provinces is 50 cents, Mexican, and, like most of the beverages manufactured in the Philippine Islands, beer is very much adulterated.

Since June 30, 1900, 307 enlisted men have been sent home insane, and Major Arthur, surgeon in charge of the first reserve hospital, Manila, where they have all been under observation and treatment, reports that 78, or 25.4 per cent, were insane from the excessive use of alcoholic liquors.

The habit of opium smoking among our soldiers has also been reported.

It is hardly probable, in view of this information, that Congress will continue the prohibition against the canteen, when it is evident that the sale of beer would be a protection against such pernicious habits and their fatal and distressing results.

Captain Erwin (Missouri) says:

At all posts in the Department both officers and men desire that beer be again sold in the post exchange, to the betterment of the soldier's fare, and furnishing him a club where, under proper restrictions, the soldier can get beer.

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**REPORT OF THE JUDGE-ADVOCATE-  
GENERAL.**

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# REPORT

OF THE

## JUDGE-ADVOCATE-GENERAL.

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WAR DEPARTMENT,  
 JUDGE-ADVOCATE-GENERAL'S OFFICE,  
 Washington, D. C., October 10, 1902.

Hon. ELIHU ROOT,  
*Secretary of War.*

SIR: I have the honor to submit the annual report of the Judge-Advocate-General's Department for the year ending June 30, 1902.

The following data are compiled from the records received at this office of trials completed and published during the year covered by this report:

Commissioned officers tried by general court-martial:	
Convicted (sentences disapproved in two cases).....	19
Acquitted.....	6
Cadets tried by general court-martial (convicted).....	2
Enlisted men tried by general court martial (including a few cases of civilians serving with the Army in the field, and discharged enlisted men serving as general prisoners):	
Convicted (sentences disapproved in 158 cases).....	4,854
Acquitted.....	430
Total trials by general court-martial.....	5,311
(Being 754 less than in the preceding year).	

The following table shows, approximately, the number of convictions of different offenses by general court-martial during the year:

Sixteenth Article of War:	
Wasting ammunition.....	2
Seventeenth Article of War:	
Losing accouterments.....	45
Losing arms.....	15
Losing clothing.....	21
Losing Government property.....	1
Selling arms.....	2
Selling accouterments.....	5
Selling clothing.....	99
Spoiling horse, arms, accouterments, etc.....	7
Nineteenth Article of War:	
Disrespectful words against the President.....	2
Twentieth Article of War:	
Disrespect to commanding officer.....	84
Twenty-first Article of War:	
Assaulting superior officer.....	8
Disobeying superior officer.....	253
Disrespectful or threatening language to superior officer.....	8
Twenty-second Article of War:	
Inciting mutiny.....	1
Joining in mutiny.....	2

Twenty-fourth Article of War:	
Disobeying noncommissioned officer when ordered into arrest.....	3
Thirty-first Article of War:	
Lying out of camp or quarters.....	20
Thirty-second Article of War:	
Absence without leave.....	846
Thirty-third Article of War:	
Failure to attend drill, roll call, etc.....	346
Leaving ranks without permission.....	3
Thirty-fourth Article of War:	
Found 1 mile from camp without leave.....	1
Thirty-eighth Article of War:	
Drunkenness on duty.....	411
Thirty-ninth Article of War:	
Quitting post.....	72
Sleeping on post.....	263
Fortieth Article of War:	
Quitting guard.....	138
Forty-seventh Article of War:	
Desertion.....	1081
Fifty-first Article of War:	
Advising another soldier to desert.....	6
Fifty-fifth Article of War:	
Committing spoil.....	2
Fifty-eighth Article of War:	
Assault and battery with intent to kill.....	10
Assault and battery with intent to commit rape.....	5
Larceny.....	46
Manslaughter.....	6
Mayhem.....	1
Murder.....	12
Rape.....	12
Robbery.....	12
Sixtieth Article of War:	
Embezzlement.....	11
Larceny.....	57
Making false and fraudulent vouchers.....	1
Purchasing Government property.....	2
Selling Government property.....	25
Wrongful disposition of property.....	3
Sixty-first Article of War:	
Conduct unbecoming an officer and a gentleman.....	7
Sixty-second Article of War:	
Absence without leave not chargeable under the Thirty-second Article of War.....	85
Abandoning equipments.....	4
Abandoning horse.....	1
Abuse of authority.....	1
Abusing noncommissioned officer.....	5
Abusing public animal.....	15
Adultery.....	1
Aiding and abetting desertion.....	4
Aiding and abetting assault with intent to kill.....	8
Aiding and abetting larceny.....	16
Aiding and abetting robbery.....	1
Aiding prisoner to escape.....	6
Allowing prisoner to escape.....	64
Assault.....	65
Assault and battery.....	96
Assault upon commissioned officer.....	3
Assault upon noncommissioned officer.....	38
Assault upon noncommissioned officer in performance of duty.....	80
Assault upon sentry.....	11
Assault with dangerous or deadly weapon.....	67
Assault with intent to do bodily harm.....	30
Assault with intent to kill.....	36
Assault with intent to rape.....	7

## Sixty-second Article of War—Continued.

Attempt at blackmail.....	1
Attempt at burglary.....	1
Attempt at larceny.....	12
Attempt at robbery.....	2
Attempt to commit sodomy.....	8
Attempt to defraud a private party.....	2
Attempt to desert.....	1
Attempt to defraud the Government.....	5
Attempt to disarm sentinel.....	2
Attempt to escape from guardhouse or confinement.....	12
Breach of arrest.....	140
Breach of trust.....	1
Breaking open locker.....	1
Burglary.....	11
Careless handling of loaded firearms.....	16
Carrying concealed weapons.....	7
Committing a nuisance.....	37
Conduct causing arrest by civil authorities.....	2
Conspiracy.....	1
Contempt of court.....	1
Creating an alarm in camp.....	2
Creating a disturbance.....	20
Creating disturbance in guardhouse.....	2
Damaging public property.....	3
Defrauding private parties.....	1
Destroying private property.....	14
Destroying public property.....	20
Discharging firearms without cause, endangering life.....	20
Disobedience of standing orders or regulations.....	110
Disobeying commissioned officer.....	87
Disobeying noncommissioned officer.....	425
Disarming sentinel.....	7
Disobeying sentinel.....	24
Disgraceful conduct; indecent, infamous, and unnatural practices.....	16
Disorderly conduct.....	65
Disposing of clothing.....	32
Disrespect to noncommissioned officer.....	119
Disrespect to sentinel.....	11
Disrespect to superior officer.....	37
Disrespect to late President.....	4
Drunk and disorderly.....	294
Drunkenness.....	174
Drunkenness, etc., causing arrest by civil authorities.....	21
Drunkenness incapacitating for duty.....	26
Drunk on duty.....	34
Embezzlement.....	27
Escaping from guard or sentinel.....	17
Escaping from guardhouse.....	12
Evasion of duty.....	8
Failure to pay debts.....	5
Failure to send correspondence through official channels.....	1
Failure to return borrowed property.....	8
False accusation.....	2
False pass, using.....	1
False statement or report.....	133
False swearing.....	2
Falsifying accounts.....	2
Fighting.....	25
Firing on civilians without cause.....	4
Forcing an entrance into private dwelling.....	26
Forgery.....	8
Fraud.....	8
Fraudulent enlistment.....	248
Gambling.....	6
Giving liquor to prisoners.....	2
Harrassing, annoying, and looting natives and citizens.....	38



Sixty-second Article of War—Continued.	
Having possession of intoxicating liquor .....	3
Impersonating an officer, sentinel, or patrol .....	1
Indecent conduct .....	24
Indecent exposure of person .....	3
Incendiarism .....	1
Insubordinate conduct toward commissioned officer .....	85
Insubordinate conduct toward noncommissioned officer .....	71
Interfering with noncommissioned officer in performance of his duty .....	7
Interfering with sentinel .....	5
Intimidation of witness .....	3
Introducing liquor into camp, quarters, etc. ....	37
Larceny .....	420
Leaving post .....	39
Leaving post and abandoning rifle .....	2
Leaving ranks without permission .....	8
Leaving hospital without permission .....	1
Losing arms, accouterments, etc., by allowing them to be captured .....	2
Making indecent proposals .....	3
Making and causing to be published a libelous statement .....	1
Making counterfeit money .....	2
Malingering .....	2
Manslaughter .....	3
Misuse of hospital supplies .....	1
Misappropriating and wrongfully disposing of public property .....	6
Misappropriating exchange funds .....	1
Mutinous conduct .....	2
Neglect of duty .....	179
Obtaining money or property under false pretenses .....	9
Out of quarters after taps .....	3
Pawning borrowed property .....	2
Pawning Government property .....	5
Perjury .....	7
Permitting member of guard or prisoner to obtain intoxicating liquor .....	23
Receiving and disposing of stolen property .....	3
Refusing to perform duty .....	9
Removing cartridge belt without authority .....	5
Removing rifle or pistol without authority .....	5
Resisting arrest .....	73
Resisting arrest by civil authority .....	3
Resisting being disarmed .....	3
Resisting noncommissioned officer .....	5
Resisting sentinel .....	1
Robbery .....	30
Selling company property .....	1
Selling, losing, or wasting Government property .....	19
Sleeping while on duty .....	5
Sodomy .....	4
Striking noncommissioned officer .....	35
Striking sentinel .....	4
Threatening civilian .....	25
Threatening noncommissioned officer .....	50
Threatening to kill .....	20
Threatening sentinel .....	9
Threatening soldier .....	5
Threatening superior officer .....	10
Threatening to do bodily harm .....	9
Trading in stolen goods .....	3
Unauthorized carrying of arms .....	1
Using insubordinate language .....	40
Using disloyal language .....	1
Using insulting and abusive language .....	98
Using profane and indecent language .....	98
Using threatening and abusive language .....	69
Uttering forged paper .....	2
Wasting food .....	2
Disorder, etc., charged as "conduct to the prejudice of good order and military discipline" (not included under previous heads) .....	106

The number of men sentenced to dishonorable discharge was 2,645.

Death sentences were imposed by courts-martial in 8 cases of enlisted men; 4 of these sentences being on conviction of murder, 2 on conviction of desertion and of entering the service of the enemy, 1 on conviction of desertion alone, and 1 on conviction of robbery and larceny of United States arms and of attempting to steal ammunition after desertion. The sentences were executed in 3 cases of murder, and in the other cases were commuted to dishonorable discharge, forfeiture of all pay and allowances, and imprisonment at hard labor for life, in 4 cases, and for the term of three years in the remaining case of desertion only.

The following table shows, approximately, the convictions of desertion, classified according to the limits of punishment prescribed in the order of the President, published in General Orders, No. 42, Headquarters of the Army, 1901:

	No.	Limit of confinement.
<b>Surrendered:</b>		<i>Months.</i>
After an absence of not more than thirty days .....	67	12
After an absence of more than thirty days .....	166	18
<b>Apprehended:</b>		
In service not more than six months at time of desertion.....	558	18
In service more than six months .....	290	30
<b>Total number of convictions.....</b>	<b>1,081</b>	
<b>Average limit of confinement.....</b>		<b>20.85</b>

In connection with this table it is to be observed that the limits of punishment are prescribed for "time of peace" only.

TRIALS BY MILITARY COMMISSION.

The records of military commissions received at this office during the year, covered by this report, show that 720 persons were tried, being 260 less than in the preceding year. Of this number 576 were convicted and 144 were acquitted. In 55 cases the sentences were disapproved. The following table shows, approximately, the offenses:

Abduction .....	12
Accessories before the fact to murder .....	5
Accessories after the fact to murder .....	6
Aiding and abetting public enemy .....	11
Aiding in murder .....	1
Arson .....	21
Assault and battery .....	31
Assault and battery with intent to do bodily injury .....	5
Assault and battery with intent to kill .....	43
Assault and battery with intent to rape .....	1
Assisting desertion .....	1
Attempt to rape .....	5
Being a spy .....	1
Being a war rebel .....	12
Being a war traitor .....	1
Consorting with the enemy .....	1
Consorting with outlaws .....	4
Conspiracy to defraud .....	1
Corresponding with the enemy .....	8
Deserting from the American Army and entering the service of the enemy ...	5
Disturbing the peace .....	1

Engaging in insurrection against the United States .....	3
Extortion under color of office .....	1
Giving information to the enemy .....	1
Guerrilla warfare .....	14
Inciting natives to treasonable acts .....	4
Kidnapping .....	90
Larceny .....	14
Manslaughter .....	39
Mayhem .....	1
Misconduct in office .....	6
Murder .....	332
Obtaining money under false pretenses .....	3
Organizing for robbery .....	14
Rape .....	9
Receiving stolen property .....	2
Relieving the enemy .....	2
Resisting arrest .....	1
Robbery .....	105
Threatening to kill .....	1
Treacherous conduct .....	3
Treason against the United States .....	2
Violation of the laws and usages of war .....	67
Violating oath of allegiance .....	17

Death sentences were imposed by military commissions in about 235 cases (nearly all natives of the Philippine Islands), on conviction of the more serious crimes named in the list, and the sentences were executed in about 128 cases. In the remaining cases the sentences were commuted to imprisonment for life or for a term of years.

Upon the recommendation of the Department the Eighty-third Article of War, which defines the jurisdiction of the several inferior courts in respect to their power to punish, was amended by the act of March 2, 1901 (31 Stats., 951), in such a way as to permit those tribunals to impose sentences of three months' forfeiture of pay, or three months' confinement at hard labor, or both, at the discretion of the court. The operation of this enactment has been to simplify the administration of military justice and to make it unnecessary to refer a considerable number of cases to general courts-martial for trial which prior to the adoption of the amendment were exclusively triable by such tribunals. In this respect it has continued to justify the expectations which were entertained as to its necessity and propriety when the matter was presented to Congress.

In closing this report it gives me great pleasure to recognize the efficient assistance which I have received from the officers of the Department in their different fields of endeavor, and from the employees, both permanent and temporary, who are attached to the Judge-Advocate-General's Office. Their labors have been zealous and untiring, and the services rendered by them have been entirely satisfactory.

Very respectfully,

GEO. B. DAVIS,  
*Judge-Advocate-General.*

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**REPORT OF THE QUARTERMASTER-GENERAL.**

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R E P O R T  
OF  
THE QUARTERMASTER-GENERAL.

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QUARTERMASTER-GENERAL'S OFFICE,  
*Washington, D. C., October 25, 1902.*

SIR: I have the honor to submit the annual report of the operations of the Quartermaster's Department for the fiscal year ended June 30, 1902.

FINANCIAL STATEMENT.

By acts of Congress approved March 2 and 3, 1901, and February 14 and April 7, 1902, there was appropriated for the regular service of the Quartermaster's Department for the fiscal year ended June 30, 1902, the sum of .....	\$57,666,340.00
During the fiscal year there was deposited to the credit of appropriations 1901-2 amounts received from sales to officers, etc.....	1,449,138.87
Making a total of.....	59,115,478.87
Of this there was remitted to disbursing officers....	\$31,366,379.20
There was paid out on account of settlements made at Treasury for claims and accounts.....	119,218.58
	31,485,597.78
Leaving a balance on July 1, 1902, available for payment of outstanding obligations incurred or fulfillment of contracts properly entered into within the fiscal year of.....	27,629,881.09
On July 1, 1901, there was on hand from regular appropriations for the service of the Quartermaster's Department pertaining to fiscal year ended June 30, 1901, the sum of .....	19,333,712.01
And from appropriations pertaining to previous fiscal years the sum of.	12,257,644.73
And from appropriations for special and indefinite purposes, certified claims, etc .....	441,999.54
Making a total balance on hand of these appropriations of....	32,033,356.28
For specific purposes there was appropriated during the fiscal year ended June 30, 1902 .....	\$1,965,269.66
During the year there was deposited and transferred to credit of appropriations, other than those of 1902, as shown above, including the sum of \$861,436.58 for Pacific railroads for years 1900, 1901, and 1902, and also the sum of \$142.16 for transportation of volunteers, war with Spain, and the sum of \$154.76 for reimbursement for bringing home remains of officers and others.....	3,874,707.80
	5,839,977.46
Making a total on hand from these appropriations of .....	37,873,333.74

Of said amounts there was remitted to disbursing officers the sum of .....	\$4,849,660.84	
There was paid out on account of Treasury settlements.	1,447,995.01	
There was carried to surplus fund.....	11,956,459.12	
		<u>\$18,254,114.97</u>
Leaving a balance on hand July 1, 1902, of .....		19,619,218.77

## RECAPITULATION.

Remitted to officers and paid out on Treasury settlements from appropriations for the regular service of the Quartermaster's Department for the fiscal year ended June 30, 1902.....	\$31,485,597.78
From appropriations previous fiscal years and from indefinite and special appropriations.....	6,297,655.85
Total .....	<u>37,783,253.63</u>
Balance remaining in Treasury June 30, 1902, of appropriations for the regular service of the Quartermaster's Department for the fiscal year ended June 30, 1902.....	27,629,881.09
And of appropriations for previous fiscal years and for indefinite and special appropriations.....	19,619,218.77
Total .....	<u>47,249,099.86</u>

Of the \$200,000 appropriated by act of May 13, 1902, for "relief of citizens of the French West Indies," there has been charged against the same on the books of this office during the fiscal year 1902 the sum of \$22,231.99. Of the \$10,000 appropriated by act of February 2, 1901, for "surveys of camp grounds for instruction of troops," there has been charged against the same on the books of this office during the fiscal year 1902 the sum of \$2,000. Of the \$200,000 appropriated by act of December 18, 1897, for "relief of people in mining regions of Alaska," there has been charged against the same on the books of this office during the fiscal year 1902 the sum of \$1,038.86.

## DUTIES OF THE QUARTERMASTER'S DEPARTMENT.

Under existing laws the Quartermaster's Department, under the direction of the Secretary of War, provides the Army with military stores and supplies requisite for its use, such as clothing and equipage, tents, band instruments, tableware and mess furniture, equipments for post bakeries, fuel, forage, stationery, lumber, straw for bedding for men and animals, all materials for camp and for shelter for troops and stores, furniture for barracks, such as bunks, benches, chairs, tables, lockers, heating and cooking stoves for use in public barracks and quarters, tools for mechanics and laborers in the Quartermaster's Department, furniture, text-books, papers, and equipment for post schools, reading matter for post libraries, wagons, ambulances, carts, saddles, harness, water supply, sewerage, plumbing, illuminating supplies, and heating for all military posts and buildings.

The Department is also charged with the duty of providing transportation, by land and water, for troops, munitions of war, equipments, and all articles of military supplies from the place of purchase to the several armies, garrisons, posts, and recruiting places.

Under act of Congress amending section 1661, Revised Statutes, for arming and equipping the militia, this Department supplies quartermaster stores, clothing, and equipage to the militia of the several

States and Territories, and transports the same to said States and Territories. It also furnishes transportation for ordnance and ordnance stores issued by the United States to the militia of the several States and Territories. It also transports the property for other Executive Departments on requisitions, payments therefor being made by the respective Departments, to the carriers upon accounts forwarded through the Quartermaster-General's Office for that purpose.

This Department prepares the necessary plans and constructs all buildings at military posts, such as barracks, quarters, storehouses, hospitals, etc.; builds wharves; constructs and repairs roads for military purposes; builds all necessary military bridges; provides, by hire or purchase, grounds for military encampments and buildings; contracts for all horses for cavalry, artillery, and for the Indian scouts, and for such infantry and members of the hospital corps in the field campaigns as may be required to be mounted; pays for all incidental expenses of the military service which are not provided by other corps.

The care and maintenance of national cemeteries is an additional duty of this Department. It also provides suitable headstones to mark the graves of all soldiers, sailors, or marines who served during the late war, including those who have been buried in private cemeteries and other burial places.

Section 1139, Revised Statutes, makes it the duty of the Quartermaster-General, under the direction of the Secretary of War, to prescribe and enforce a system of accountability for all quartermaster supplies furnished the Army, its officers, seamen, and marines.

#### CLOTHING AND EQUIPAGE.

During the last fiscal year the sum of \$8,665,794.02 was available for use in providing clothing and equipage supplies for the Army and militia. Of this amount \$3,695,136.63 was remitted to officers of the Department and requisition for \$23,528.42 issued on settlements made by the Treasury on account of claims, leaving a balance on hand June 30, 1902, of \$4,947,128.97.

There were issued during the year to the militia of the various States and Territories and of the District of Columbia supplies amounting to \$386,889.07. There were also sold to the militia during the fiscal year, under the act approved February 24, 1897, clothing and equipage supplies to the amount of \$4,122.08.

Under the act of Congress approved May 26, 1900, which provides for the replacement of such quartermaster supplies as were furnished by the States and brought into the service of the United States by volunteer troops during the war with Spain, claims for clothing and other quartermaster stores in kind to the value of \$75,066.32 were allowed by this Department during the past fiscal year. This, added to the former issues (\$293,417.33), will make the total value of the property transferred up to June 30, 1902, under the act quoted, \$368,483.65.

The collections by the pay department from the enlisted men of the Army from April 1, 1901, to March 31, 1902, on account of clothing drawn by them in excess of their allowance, amounted to \$237,536.20, all of which was placed to the credit of the appropriation for clothing and equipage. There was paid by the same department to the enlisted men during the same period, at time of their discharge from the service of the United States, on account of clothing undrawn (savings), the sum of \$1,241,290.51.



From the foregoing it appears that the savings are considerable, showing present allowances to be ample.

Articles of clothing and equipage to the amount of \$25,760 were sold to the division of insular affairs of the War Department, under special authority of the Secretary of War, for the use of the Philippine constabulary.

#### MARTINIQUE RELIEF EXPEDITION.

Congress, by act approved May 13, 1902, made an appropriation of \$200,000 for the procurement and distribution of such provisions, clothing, etc., as the President might deem advisable for the purpose of relieving the people of Martinique and other islands in the West Indies from the distress which followed the volcanic eruptions there. By 9.20 p. m. May 14, 1902, this Department had placed on board the steamer *Dixie* at New York, which had been designated for the relief expedition, supplies to the value of \$22,340.62, purchased and issued from its depots. An officer of the Quartermaster's Department accompanied this relief expedition. In addition to the supplies forwarded on the *Dixie*, clothing and equipage to the value of \$20,758.58 were shipped in charge of an officer of the Quartermaster's Department from San Juan, P. R., on a naval ship dispatched from that point.

#### INSPECTION OF SUPPLIES.

Every care is taken to secure supplies fully up to the requirements of the established standards and specifications, and it is believed that the present inspection system of the Department is such as to obtain the best results.

#### EXPERIMENTS TO OBTAIN FAST COLORS FOR WOOLEN MATERIALS.

Studying the conditions connected with modern warfare, as demonstrated in the campaigns in Cuba, the Philippines, and China, this office has for some time been engaged in experiments in dyeing to ascertain the color that would be the least visible. Meeting at first with numerous disappointments, the efforts were finally rewarded with success by producing an olive-drab color, which for invisibility, fastness, and serviceability is believed to be well adapted to the requirements of the service.

The Department was thus enabled to submit to the board of officers appointed by paragraph 14, Special Orders, No. 52, War Department, March 3, 1902, to consider the uniforms and equipments of the Army, perfected samples of materials of various shades of color which resulted in the adoption of the olive-drab mixed shade for the future overcoats and service winter uniforms.

#### KHAKI WOOL SHIRTS.

In the last annual report of this office reference was made to experiments being then made with khaki dye for woolen fabrics for shirts. Reports received at this office upon the trial of 500 khaki woolen shirts sent to the Philippine Islands for trial show conclusively that they possess all the good qualities of the D. B. flannel shirts and in addition

are less visible to the enemy. It was therefore decided to place a supply of these shirts at Manila at the earliest practicable date and steps were taken to provide sufficient flannel for 30,000 shirts and manufacture them by contract as rapidly as possible.

#### SHOES.

After thorough consultation with large manufacturers of shoes, who are in no manner connected with furnishing such articles for the Army, shoes of an improved pattern have been developed for army use which it is thought will give greater comfort than those heretofore issued by this Department. Five hundred pairs were manufactured and tried in actual service. The result of this trial was so favorable that it was decided to adopt these shoes as standards for the Army. Standard samples and specifications conforming thereto were prepared and distributed to the general depots of the Department.

#### WATERPROOFING OF WOOLEN GOODS.

Various suggestions for waterproofing the woolen materials entering into the manufacture of army clothing have been received, and this office has for some time been engaged in experiments in such line. No satisfactory results have thus far been reached.

#### BERLIN GLOVES OF DOMESTIC PRODUCTION.

The Berlin gloves issued to the Army at present are of foreign production. A very thorough practical test of gloves of American manufacture was made during the past year. The test demonstrated that they were not as serviceable, and consequently not as desirable, as those now furnished the Army, and the Department will be compelled to continue the purchase of foreign-made Berlin gloves until something of American make equal to our present standards shall be brought to its attention.

#### SHELTER TENTS AND SHELTER-TENT POLES.

The shelter tents have been improved so that hereafter they will cover 8 feet of ground space instead of 6 feet 10 inches, as heretofore. Owing to many complaints regarding the shelter-tent poles furnished, an officer of this office devised a pole which will be issued in the future, and, it is believed, will satisfactorily meet all requirements.

#### TELESCOPE PACKING CASES.

A telescope case of substantial waterproof material, 18 inches long, 15 inches wide, and 9 inches deep, is now furnished enlisted men en route for duty in the Philippines, it having been found that trunks and boxes were not suited to such service.

## CAVALRY AND ARTILLERY HORSES AND MEANS OF TRANSPORTATION.

The following statement shows the number and cost of public animals, wagons, and harness purchased by this Department from July 1, 1901, to June 30, 1902:

	Number.	Total cost.	Average cost, each.
Cavalry horses .....	1,746	\$219,241.25	\$125.57
Artillery horses .....	1,762	249,745.76	141.17
Riding horses .....	1	85.00	85.00
Draft horses .....	50	9,012.98	180.26
Draft mules .....	84	12,029.00	143.20
Pack mules .....	15	1,200.00	80.00
Spring wagons, Dougherty .....	25	5,384.65	213.38
Wagonette, or other kinds .....	29	8,814.85	303.96
Trucks, 2 and 4 horse .....	3	874.00	291.33
Dump carts .....	102	5,025.50	49.27
Dump carts, sanitary .....	35	6,762.00	192.91
Carts, spring hammock .....	1	36.00	36.00
Express wagons .....	1	189.00	189.00
Water wagons .....	5	1,520.00	204.00
Spring wagons, delivery .....	107	12,676.85	118.48
Miscellaneous wagons .....	26	4,170.75	160.41
Sleighs .....	47	771.00	16.40
Single sets harness .....	2,219	51,485.77	23.20
Harness, cart .....	158	4,657.00	39.47
Aparejos and parts .....	309	13,139.89	42.52
Total .....		606,761.25	

The total cost of army ranges, ovens, typewriters, and office safes amounted to \$86,323.20.

During the fiscal year forage was purchased and shipped to the Philippines, Cuba, and Porto Rico as follows:

	Pounds.
Hay .....	69,367,419
Oats .....	74,527,832
Bran .....	511,400
Corn .....	22,820

In the same period 50,435,352 pounds of various kinds of native forage were purchased in the Philippines, at cost of \$252,176.76.

## SALE OF SURPLUS AND CONDEMNED ANIMALS.

During the past fiscal year, in the United States, Porto Rico, and Cuba, there were condemned and sold 1,930 cavalry horses for \$101,718.79, average price \$52.70 each; 103 artillery horses for \$4,236.66, average price \$41.13 each; 144 draft horses for \$10,154.83, average price \$70.52 each. There were also sold 123 surplus horses for \$8,696.63, average price \$70.70 each. Six hundred and fifty-one mules were condemned and sold for \$51,889.49, average price \$79.71 each; also 352 surplus mules for \$30,634.62, average price \$87.03 each.

In addition to the foregoing, the following surplus and condemned animals were sold in the Philippines: Six hundred and twenty-three cavalry horses, 83 draft horses, and 213 mules, but reports showing amounts received for these animals have not yet been received at this office.

During the year there were 2,584 horses and 1,865 mules lost, died, stolen, etc. Of these, 1,988 horses and 1,705 mules were destroyed or died of disease in the Philippines, the most common complaints

being glanders and surra. The latter is reported to be an infectious disease due to the introduction into the system of a parasite that propagates very rapidly in the system of different animals, and that the period of incubation varies according to the condition of the animals and also the number of parasites which first gain access into the economy. The disease runs a course of from ten days to two months, varying with the acuteness of the attack.

There remained on hand at the close of the fiscal year, 20,683 horses and 7,798 mules.

#### TRANSPORTATION.

During the last fiscal year transportation was furnished, exclusive of the army transport service, for 1,012,259 persons, 12,014 animals, and 274,750 tons of material.

There were transported over bond-aided railroads 23,635 persons, 1,021 animals, and 43,787,162 pounds of freight.

The cost of maintaining the 48 vessels owned by this Department, exclusive of transports and boats in service in the Philippines, amounted to \$253,012.72.

#### ARMY-TRANSPORT SERVICE.

On June 30, 1901, the Army Transport service between the United States and Cuba and Porto Rico was discontinued, and on July 1, 1901, all of the army transports which had been employed transporting troops and supplies between the United States and the West Indies, were placed in New York Harbor and put out of commission, with a view to their future disposition, with the exception of the army transport *McPherson*, which had been wrecked on the coast of Cuba in February, 1901, and which had been raised and temporarily repaired, and was then en route from Matanzas to New York.

Five of these transports had been employed continuously during the preceding fiscal year in this service, viz, *Crook*, *McClellan*, *McPherson*, *Rawlins*, and *Sedgwick*. In addition to these, the smaller transport, *Ingalls*, used as an inter-island boat in the West Indies, was also in New York Harbor being fitted up for service as an inter-island transport in the Philippines.

In view of the needs of the service on the Pacific, it was determined to fit up the army transport *Crook* and send her to Manila, and to lay up the army transports *Sedgwick*, *McClellan*, and *Rawlins*.

The army transport *Rawlins* was sold to the Merchants and Miners' Transportation Company, of Baltimore, Md., on July 27, 1901, for \$200,000.

A contract was entered into with the Morse Iron Works and Dry Dock Company, of New York, who were the lowest bidders, for refitting and repairing the army transport *Crook*, at a cost of \$92,475. She sailed for Manila, via the Suez Canal route, on December 5, 1901, arriving in Manila on February 3, 1902.

August 22, 1901, the transport *Ingalls* was dispatched from New York for Manila via the Suez Canal, and arrived in Manila October 10, 1901, where she has since been employed in inter-island service.

The *McClellan* was fitted up and sailed from New York on July 10, 1901, arriving in Manila on September 9, 1901. This transport returned to New York, leaving Manila October 18, 1901; arrived December 23, 1901; she again sailed for Manila on February 23,

1902, where she arrived on April 21, 1902; and since that date she has been continuously on duty in Philippine waters.

The examination of the army transport *McPherson* on arrival in New York disclosed that she would need extensive and costly repairs, and as there was no further need of the vessel in the transport service she was appraised and offered for sale by public advertisement. No acceptable bid having been received for her, she was withdrawn from sale and subsequently re-advertised and sold at auction in November, 1901, to Mr. L. E. Lunt, the highest bidder, for \$11,150.

The small army transport *Terry* under second re-advertisement was sold at auction in August, 1901, to Mr. M. E. Barry, the highest bidder, for \$19,600.

Upon the discontinuance of the army transport service between the United States and the West Indies, the separate office of this service, which had been established in New York City, was closed, and the duties pertaining to it transferred to the depot quartermaster there.

June 10, 1902, instructions were given to have the transport *Sedgwick* advertised for sale. Proposals for the purchase of the ship were not opened until after the close of the fiscal year.

At the beginning of the fiscal year, the following-named tugs, steam lighters, and other small vessels were in the army-transport service in Cuba and on the Atlantic coast, viz: the tugs *Ord*, *Reno*, *Reynolds*, *Richardson*, *Gibbons*, *Weitzel*; steam lighters *Baker*, *Williams*, and *Kearney*; steam yachts *Kanawha* and *Viking*; sloops *Esperanza* and *Miguel*, and the flat lighters *Mocha* and *Bartley*.

During the year the tugs *Reno*, *Reynolds*, *Gibbons*, and *Weitzel*, and the steam lighters *Baker* and *Williams* were transferred from the army-transport service to duty at seacoast posts in the United States.

The tug *Richardson* with the two lighters *Mocha* and *Bartley* were advertised and sold to the highest bidder for \$12,045 for the three vessels. The sloop *Miguel* was also advertised and sold to the highest bidder for \$500.

The steam lighter *Kearney* and steam yacht *Kanawha*, which had been in service as inter-island vessels in Cuba, were withdrawn and ordered to the United States, where they are now in service.

The tug *Ord* and sloop *Esperanza* are still in service in Cuba; the *Esperanza* has been appraised with a view to her sale. The steam yacht *Viking* being no longer required for the transport service was advertised for sale, but bids for her purchase were not opened until after the close of the fiscal year.

The army transport *Buford*, which had been refitted in the previous year and sent to Manila, after making two voyages to San Francisco and return to Manila, was returned to New York via the Suez Canal route, carrying 23 officers and 901 enlisted men of the Twenty-third United States Infantry and a number of other passengers. This transport returned to Manila from New York in January, 1902, and has since been continuously on the line between San Francisco and Manila.

At the beginning of the fiscal year the following-named army transports were in service on the Pacific, viz: Troopships *Buford*, *Grant*, *Hancock*, *Kilpatrick*, *Logan*, *Meade*, *Rosecrans*, *Sherman*, *Sheridan*, *Sunner*, *Wright*, *Thomas*, *Warren*, and *Liscum*; cable ship *Burnside*; freight ships *Dix* and *Egbert*, and hospital ship *Relief*. During the fiscal year there were added, as hereinbefore stated, the transports *Crook*, *Ingalls*, and *McClellan*.

During the fiscal year there was maintained a regular line of transports sailing semi-monthly between San Francisco and Manila, the regular sailing dates from San Francisco being the 1st and 16th of each month.

The transport *Dix* has also been continuously employed transporting supplies from the Pacific coast to the Philippines.

The troopships being amply provided with accommodations for the care of invalid soldiers, the Medical Department reported that the hospital ship *Relief* was not required for the special service of that Department, and was accordingly transferred to the Quartermaster's Department early in the fiscal year for service as a troop and supply ship, and was retained in service as an inter-island transport.

Six chartered ships were in service on July 1, 1901, 4 of which were discharged during that month and the remaining 3 in August following. No additional ships were in service under charter during the fiscal year.

In view of the reduction of the number of troops serving in the Philippines, steps were taken toward the close of the fiscal year to reduce the number of army transports running between San Francisco and Manila. The following-named vessels were designated to be retained for such service: Troopships *Grant*, *Sherman*, *Sheridan*, *Logan*, *Thomas*, *Kilpatrick*, *Crook*, and *Buford*; freight ships *Dix* and *Warren*; the transports *Burnside*, *Ingalls*, *Liscum*, and *Wright* to be retained in the inter-island service.

It was decided to put the remaining transports out of commission in San Francisco and New York as soon as they could be spared, with a view to their final disposition in the best interests of the Government. Of the transports to be put out of commission the *Meade*, *Egbert*, *McClellan*, and *Sumner* were, when purchased, under foreign registry. The *Hancock*, *Rosecrans*, *Relief*, and *Lawton* were under American registry when purchased.

It was found upon the return of the *Grant* from her last trip that very extensive and expensive repairs were necessary to place her in fit condition for service on the line to Manila, and therefore she was also put out of commission and the army transport *Hancock* temporarily assigned in her stead.

Sealed proposals were invited by advertisement in the large cities of the East and of the Pacific coast for the sale of the transports *Grant*, *Rosecrans*, and *Egbert*. The offers received in response to these advertisements being considered far below the value of the vessels, they were rejected and these ships still remained in the hands of the Department at the close of the fiscal year.

On June 30, 1902, the transports *Meade*, *McClellan*, and *Sumner* were still in active service.

#### REPAIRS TO TRANSPORTS.

The repairs on the transport *Sherman*, which were under way at the close of the last fiscal year, were delayed on account of a strike, and were not completed until the spring of 1902, and she was dispatched for Manila April 16, 1902.

During the summer of 1901 the army transport *Seward* was on duty in Alaska, returning to Portland, Oreg., on October 28, 1901, where she remained during the winter. There being no further need for her

services in Alaska, the transport was fitted up at Seattle as a refrigerating ship, at a cost of \$52,921, for service distributing fresh meats and vegetables among the Philippine Islands.

Quite extensive repairs were authorized by the Department during the fiscal year upon four transports which have for some time been continuously in service in the Philippines, viz: *Sumner*, \$47,710; *Relief*, \$36,418; *Liscum*, \$92,000; *Wright*, \$42,650. These expenditures were authorized after full report to the Department showing the absolute necessity for them in order to keep the vessels in safe and suitable condition for the transportation of troops and supplies around the islands.

No other extensive alterations and repairs were made to any of the army transports. Each of the transports, however, after making the long voyage from San Francisco to Manila and return, usually required on their arrival in San Francisco some repairs to their machinery and hull. The total expenditure on the Pacific coast for refitting and repairs on the transports during the year, as reported, was \$605,231.47.

#### ALASKAN SERVICE.

The transport *Egbert* sailed from Seattle on July 31, 1901, with 3 officers, 129 enlisted men of the Seventh Infantry, 9 men of the Hospital Corps, 1 subsistence department, 4 civilians, and a full load of supplies.

The *Rosecrans* sailed from the same port for Alaska on August 15, 1901, with 3 officers, 156 enlisted men, 5 civilians, and a cargo of supplies.

The transport *Seward*, which had sailed from Seattle for Alaska on June 11, 1901, became disabled en route and was returned to Seattle in tow of the transport *Warren*. After repairs were made to the ship she again returned to Alaska, leaving Seattle on August 23, 1901.

On September 30, 1901, the Department of Alaska was discontinued and the Major-General commanding and staff returned to the United States on the *Seward*, arriving in Portland, Oreg., October 28, 1901.

#### ARMY TRANSPORT SERVICE IN THE PHILIPPINES.

During the year there were 7 owned transports on duty in the Philippines transporting troops, animals, and supplies to inter-island ports, 4 steam lighters, 3 cascos, 54 bancos, 52 lighters, 6 lorchas, 2 paras, 2 punts, 1 viray, 1 lancan, 9 sailboats, 3 scows, 75 rowboats, and 3 coal hulks; a total of 222 vessels of various classes.

The expenditures on account of the army transport service during the fiscal year ended June 30, 1902, were very largely reduced from those of the previous fiscal year.

The chief quartermaster at Manila reports that one of the most expensive items in the conduct of the army transport service in the Philippines is lighterage, due to the lack of wharves at ports at which troops and supplies must be landed. The insular government has, however, commenced the construction of wharves at various ports, which when completed will still further materially reduce the cost for inter-island transportation.

The following table shows the movement of passengers between the United States and the Philippines, Honolulu, and Alaska during the fiscal year:

From the United States to Philippine Islands.....	15, 853
From the United States to Honolulu.....	73
From Honolulu to the Philippines.....	74
From the Philippines to the United States.....	33, 080
From the United States to Alaska.....	310
From Alaska to the United States.....	167
<b>Total</b> .....	<b>49, 557</b>

There were also brought from the Philippine Islands to the United States for reinterment the remains of 1,096 officers, enlisted men, and civilian employees.

The shipment of freight and miscellaneous stores between the United States, the Philippines, Honolulu, and Alaska during the fiscal year was as follows:

	Tons.
From the United States to the Philippine Islands.....	83, 613
From the United States to Honolulu.....	427
From Honolulu to the Philippines.....	28
From the United States to Alaska.....	2, 750
From the Philippines to the United States.....	10, 298
<b>Total</b> .....	<b>97, 116</b>

In addition to the above, there were transported from the United States to the Philippines 860,863 pounds of mail matter, and \$2,478,000 in money, and from the Philippine Islands to the United States, 145,474 pounds of mail matter.

There were only 5 horses transported from the United States to the Philippines during the year.

The total movement during the fiscal year between inter-island ports of the Philippines by owned transports was 70,169 passengers, 2,109 animals, and 147,972 tons of freight, and by commercial vessels 6,697 passengers and 31,249 tons of freight.

From May 25, 1898, to June 30, 1902, there had been transported on owned and chartered transports a total of 595,387 persons.

The following is a list of the owned vessels in the army transport service at the close of the fiscal year, showing their class, tonnage, capacity for passengers and cargo, and where employed on June 30, 1902:

Name.	Class.	Tonnage.	Capacity.			Where employed.
			Officers.	Men.	Cargo with troops.	
Buford.....	Troop ship.....	5, 039	68	984	<i>Tons.</i> 2, 764	Pacific fleet.
Burnside.....	Cable ship.....	2, 194	31	178	1, 006	In Philippines.
Crook.....	Troop ship.....	4, 126	91	870	2, 867	Pacific fleet.
Egbert.....	Freight ship..	2, 845	20	.....	3, 237	Out of commission in San Francisco.
Dix.....	do.....	6, 839	12	.....	9, 939	Pacific fleet.
Grant.....	Troop ship.....	5, 690	82	1, 827	1, 887	Out of commission in San Francisco.
Hancock.....	do.....	5, 164	67	1, 062	2, 160	Pacific fleet.
Ingalls.....	do.....	1, 347	31	182	588	In Philippines.
Kilpatrick.....	do.....	5, 046	68	984	2, 764	Pacific fleet.



Name.	Class.	Tonnage.	Capacity.			Where employed.
			Officers.	Men.	Cargo with troops.	
					<i>Tons.</i>	
Kanawha ..	Transport .....	127	6			Washington, D. C.
Lawton .....	Troop ship .....	3,497	61	663	1,288	In Philippines.
Liscum .....	Transport .....	1,072			696	Do.
Logan .....	Troop ship .....	5,672	146	1,650	1,766	Pacific fleet.
McClellan ..	do .....	3,006	75	180	2,156	In Philippines.
Meade .....	do .....	5,641	88	1,176	1,376	Pacific fleet.
Relief .....	do .....	3,094	18	288	978	In Philippines.
Rosecrans ..	do .....	2,608	20	606	2,086	Out of commission in San Francisco.
Sedgwick .....	do .....	4,770	118	890	906	Out of commission in New York.
Seward .....	Transport .....	2,100	28		740	Seattle. Being fitted up as refrigerating ship.
Sheridan .....	Troop ship .....	5,673	126	1,842	1,744	Pacific fleet.
Sherman .....	do .....	5,790	112	1,776	1,810	Do.
Sumner .....	do .....	3,458	63	768	811	In Philippines.
Wright .....	Transport .....	871	17	100	154	Do.
Thomas .....	Troop ship .....	5,796	133	1,648	1,984	Pacific fleet.
Warren .....	do .....	4,375	53	1,239	1,000	Do.
Kearney .....	Steam lighter.	185			158	En route from Cuba to Washington, D. C.
Viking .....	Steam yacht ..	141				Out of commission in New York.
Slocum .....	Tug .....	581				San Francisco Harbor.
Ord .....	do .....	21				Santiago, Cuba.
Esperanza ..	Sloop .....	9.5				Gibara, Cuba.

## GENERAL REMARKS REGARDING TRANSPORT SERVICE.

Upon the declaration of war with Spain in April, 1898, the Quartermaster's Department was called upon to provide means of transportation for the army to Cuba. The charter of every available steamship under American registry on the Atlantic and Gulf coasts was considered in connection with this service. These ships were carefully and thoroughly inspected to ascertain their seaworthiness and suitability for transporting troops and supplies on the ocean, and if found suitable were chartered and fitted up for service.

The Navy Department had already secured the largest and most commodious of American vessels for service as auxiliary cruisers, and those left available for transport service were of the smaller coast-line steamships used for the transportation of freight, with limited accommodations upon them for cabin passengers. From this class of steamships there were chartered the fleet of transports, about thirty in number, which were hastily fitted up for the transportation of officers, men, horses, and all the necessary supplies and impedimenta required for an army in the field.

To provide quarters upon these vessels for the enlisted men to be transported, it was necessary to build bunks on the main and 'tween decks of the ships, and to render these quarters habitable, ports were required to be cut in the ships, and wind sails provided to force air through these ports while en route.

Upon these hastily fitted up transports, the army of General Shafter was transported to Santiago, and after its successful mission in Cuba was returned to the United States, and subsequently the armies of occupation of that island and Porto Rico were transported from the United States on some of these vessels.

From these movements it was manifest that such ships were ill suited for service as troop transports for the Army. The quarters of the men were crowded, poorly ventilated, and unsanitary, causing more

or less suffering among the troops, particularly while in the warm climate of the West Indies.

The success of the naval fleet in the bay of Manila and the call for an army to operate on land in that distant archipelago, rendered necessary the charter of a large fleet of ships on the Pacific coast for the transportation of the army on a voyage of nearly 7,000 miles.

Fortunately, on the Pacific coast there were numerous trans-Pacific steamships of large capacity which were available for use of the Government in this emergency. These vessels were fitted up for the accommodation of men and supplies, and the army of occupation was successfully landed in Manila.

Although these ships were commodious and quarters of the enlisted men upon them not overcrowded, it was not possible to make them ideal troopships for a long voyage in the Tropics, with their loads of human freight.

After mature consideration it was decided to purchase steamships suitable for conversion into army transports. Several large steamships were tendered for sale to the Government by the Atlantic Transport Line, which had a fleet of vessels engaged in the transportation of cattle and dressed meats from the United States to Europe. Seven ships were purchased from that steamship line. The Department also acquired, by purchase, seven other steamships. These purchases were made in the summer of 1898, and the ships were hastily fitted up for the transportation of troops, animals, and supplies, and the chartered transports which had been in service between the United States and the West Indies were discharged.

The owned transports were found to be admirably adapted for the service, but there were still lacking in them such accommodations as would make them ideal troopships for long voyages on the ocean. Plans and specifications were therefore prepared for the conversion of these ships into commodious and comfortable transports, and, as they could be spared from the service, one or more of them at a time, contracts were made with leading shipbuilding companies to overhaul and fit them, in accordance with these specifications. Upon completion of three of these ships, viz, *Grant*, *Sherman*, and *Sheridan*, each of which had been fitted to accommodate over 1,800 enlisted men, the three ships sailed from New York to Manila in the winter of 1898-99, each carrying one full regiment, a battalion of another regiment, and a large quantity of military stores.

Other transports were subsequently fitted up in similar manner, every possible care being taken to make them in every sense the most complete and perfect vessels for the safe and comfortable transportation of men.

The quarters for the enlisted men were provided with metal berths, insuring cleanliness, and are amply ventilated and lighted by electricity; large refrigerating plants were installed upon the ships for the preservation of fresh meats and vegetables for the entire voyage, and ample galleys provided for the preparation of food in the most approved manner. Hospitals were also fitted up for the care and treatment of the sick, with isolation wards for the perfect isolation and treatment of any contagious disease which may develop upon the voyage.

The representatives of a number of other nations have asked for and have been furnished with copies of the plans and specifications under which our transports have been fitted up.

Nearly every ship sailing from Manila had on board about one hundred sick, who were provided with every attention and comfort in the transport hospitals that would be found in any well-regulated hospital ashore.

During the uprising in China in 1900, the United States was enabled by the possession of a well organized transport fleet to place its army and supplies in China promptly and in excellent condition.

Of the many thousands of persons who have been transported on the vessels of the army transport service since its inception, not one life has been sacrificed by reason of any fault in the fittings or accommodations upon the army transports.

In view of this excellent record, and of the experience of the Department in its futile efforts to secure suitable commercial ships for the transportation of the armies during the war with Spain, and the further fact that when withdrawn from active service the transports can not be advantageously disposed of by sale, I am firmly convinced that, even though circumstances should permit the withdrawal of the transports from regular line service to the Philippine Islands, it would be wise policy to retain a sufficient number of transports as a part of the equipment of the Army, to be economically cared for and kept in such condition as to be promptly available for any emergency which may arise requiring the transportation of troops on the ocean.

The army transport service at San Francisco was under the charge of Maj. O. F. Long to March 31, 1902, and of Maj. C. A. Devol from that time to the close of the fiscal year, and at Manila the service was in charge of Maj. J. B. Aleshire, under the direction of the chief quartermaster. These officers discharged their responsible duties in a zealous and efficient manner. The duties of the transport quartermasters were also creditably performed.

#### BARRACKS AND QUARTERS.

In order to meet the needs of the increased Army the Quartermaster's Department has been actively engaged in construction work at military posts and stations, involving a vast amount of work in the preparation of plans, estimates, and specifications for buildings and for water and sewer systems, roads, and walks.

Congress, in the act making appropriations for the support of the Army for the fiscal year 1901-2, provided, under the head of "Barracks and quarters," the sum of \$3,000,000, of which there was expended during the year \$2,934,676.49 for construction and repair of buildings, rents, etc., in the United States and insular possessions. The construction work was carried on at seventy-eight posts and stations, and comprised the erection of certain of such buildings as quarters for commissioned and noncommissioned officers, barracks for troops, stables, guardhouses, band stands, wagon sheds, administration buildings, storehouses, ordnance repair shops, coal sheds, gun sheds, lavatories, etc. Minor or important repairs were made during the year at all posts.

#### MILITARY POSTS.

In the act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1902, Congress appropriated under the head of "Military posts" \$860,000 for the construc-

tion of buildings at, and the enlargement of, military posts; for the construction of barracks and quarters for artillery in connection with the adopted project for seacoast defense, and for the purchase of suitable building sites. The sum of \$829,458.79 of this appropriation was apportioned during the fiscal year to the following posts: Forts Baker, Cal.; Casey, Wash.; Getty, S. C.; H. G. Wright, N. Y.; Leavenworth, Kans.; McKinley, Me.; Monroe, Va.; Myer, Va.; Preble, Me.; Riley, Kans.; Rodman, Mass.; Terry, N. Y.; Williams, Me.; Worden, Wash.; Wright, Wash.

At the close of the fiscal year a balance of \$30,541.21 was available for extra work on buildings and the purchase of land.

## SPECIAL APPROPRIATIONS FOR CONSTRUCTION.

Under the head "Military posts" in the sundry civil appropriation act for the fiscal year ending June 30, 1902, Congress also made the following special appropriations for construction work:

*Fort D. A. Russell, Wyo.*—"For continuing work of rebuilding quarters and for rebuilding commanding officer's quarters," \$35,000, of which amount the expenditure of \$31,801 had been authorized up to the close of the fiscal year.

*Governors Island, New York Harbor.*—"For the erection of storehouses and other necessary buildings," \$60,000. No expenditure has yet been authorized from this appropriation, as these buildings can not be erected until further progress is made on the general project for enlarging the island, which is under the charge of the Engineer Department.

*Fort Lincoln (Bismarck), N. Dak.*—"For continuing the work of constructing the necessary buildings, quarters, barracks, and stables," \$35,000, of which amount the expenditure of \$34,362.24 had been authorized up to the close of the fiscal year.

*Fort MacKenzie (Sheridan), Wyo.*—"For continuing the work of constructing the necessary buildings, quarters, barracks, and stables," \$35,000, of which amount the expenditure of \$34,462.50 had been authorized up to the close of the fiscal year.

*Fort Meade, S. Dak.*—"For the construction of permanent buildings and for other necessary improvements," \$35,000, of which amount the expenditure of \$33,524.10 had been authorized up to the close of the fiscal year.

*Fort Wright (Spokane), Wash.*—"For the construction of buildings and improvements," "the unexpended balance of the appropriation made by the sundry civil act approved July 1, 1898, for continuing construction and improvements at the military post at Spokane, Washington," was "reappropriated and made available until the close of the fiscal year 1902, together with such additional sum out of the amount appropriated for construction of buildings at and enlargement of military posts as may in the discretion of the Secretary of War be necessary." The balance available under special appropriation of July 1, 1898, was \$31,145.33, and the expenditure of this sum was authorized during the past fiscal year.

Under the head of "Armories and Arsenals" there was appropriated "for the construction of one fireproof building for storage and other purposes at the Schuylkill Arsenal, Philadelphia, Pa." \$75,000, of

which amount the expenditure of \$73,129.20 had been authorized up to the close of the fiscal year.

In the deficiency act approved March 3, 1901, there was appropriated "for the construction of buildings at the military post at Fort Des Moines, Iowa, and for grading, water and sewer systems, roads, walks, gutters, and fences," the sum of \$200,000, of which amount the expenditure of \$196,080 had been authorized up to the close of the fiscal year.

#### APPROPRIATION FOR HOSPITALS AND HOSPITAL STEWARDS' QUARTERS.

In the act making appropriation for the support of the Army for the fiscal year ending June 30, 1902, Congress appropriated "For construction and repair of hospitals at military posts already established and occupied, including the extra-duty pay of enlisted men employed on the same, and including also all expenditures for construction and repairs required at the Army and Navy Hospital at Hot Springs, Arkansas, except quarters for the officers," \$100,000, and by the act "making appropriations to supply additional urgent deficiencies in the appropriations for the fiscal year ending June 30, 1902," Congress appropriated \$10,000 for the same purpose, the total appropriated being \$110,000. In accordance with estimates approved by the Surgeon-General of the Army, the sum of \$17,300 was apportioned to the Philippine Islands and the remainder for construction or repair of hospitals at seventy-four posts in the several military departments.

In the army appropriation act for the fiscal year ending June 30, 1902, Congress appropriated \$10,000 for the construction of hospital stewards' quarters at established posts. This sum was apportioned for construction and repair work at forty-eight posts.

#### COST OF CONSTRUCTION.

The increased price of building materials, and also of all kinds of skilled labor employed in the building trades throughout the United States, has tended to increase the cost of buildings erected under contracts during the period covered by this report, the increase being in some cases as much as 15 and even 20 per cent over prices prevailing one and two years ago. There is also a tendency on the part of bidders for construction work to require in their proposals more time for completing buildings, due, as is stated by them, to the difficulties they experience in securing prompt delivery of material. This upward tendency of prices for material and labor still continues and will materially affect the cost of construction during the current fiscal year.

#### SEACOAST LANDS.

*Fort Mott, N. J.*—The Secretary of War has authorized the acquisition of about 30½ acres at this post, and condemnation proceedings are still in progress.

*Fort Armistead, Md.*—The question of acquiring 31 acres of land at this post is pending before the War Department in connection with the acquirement of other adjacent property.

*Fort Constitution, N. H.*—In the sundry civil acts of June 6, 1900, and of June 28, 1902, Congress appropriated \$60,000 for the acquisition of land in the squares surrounding Fort Constitution for bar-

racks and quarters for troops. The necessary title to this land had not been secured at the close of the fiscal year.

*Fort Casey, Wash.*—On October 27, 1901, the sum of \$16,180.45 was paid into the district court of the United States in the State of Washington in accordance with judgment rendered in condemnation proceedings for the acquirement of about 200 acres of land at this post.

*Fort Worden, Wash.*—On May 15, 1902, the sum of \$23,086.45 was paid into the United States district court in the State of Washington in accordance with judgment rendered in condemnation proceedings for the acquirement of about 159 acres of land at Fort Worden.

*Fort Preble, Me.*—Under the authority of the Secretary of War a strip of land about 150 by 500 feet was purchased at this post at a cost of \$7,800.

*Fort Fremont, S. C.*—Efforts are being made, with the assistance of the Department of Justice, to secure about 120 acres of land at this place.

*Fort Levett, Me.*—In the fortification act approved June 6, 1902, the sum of \$225,000, or so much thereof as may be necessary, is appropriated to enable the Secretary of War, in his discretion, to purchase all the land on Cushing's Island, in Portland Harbor, Maine, necessary to be used to erect additional batteries and buildings for troops. The acquisition of this land was receiving the attention of the War Department at the close of the fiscal year.

*Fort Des Moines, Iowa.*—In the sundry civil act approved June 28, 1902, Congress appropriated \$27,750 for the purchase of 525 acres of land near the proposed site of Fort Des Moines, Iowa, for the use of a target range. Title had not been secured at the close of the fiscal year.

*Fort Leavenworth, Kans.*—In the sundry civil act approved June 28, 1902, Congress appropriated \$9,300 for the purchase of the small tracts of land adjoining the military reservation at Fort Leavenworth, Kans., necessary for the maneuvering of troops. The title to these tracts had not been acquired at the close of the fiscal year.

*Fort Myer, Va.*—In the sundry civil act approved June 28, 1902, Congress appropriated \$4,500 for the purchase of the land forming the roadway from the Aqueduct Bridge to Fort Myer, Va. This purchase had not been consummated June 30, 1902.

#### MILITARY RESERVATIONS DISPOSED OF.

During the year the military reservations, with the buildings thereon, at Fort Custer, Mont., and Nome, Alaska, were turned over by the War Department to the Interior Department.

#### STERILIZERS FOR THE PHILIPPINES.

The question of pure-water supply for troops serving in the Philippine Islands has always received the most careful attention of the Department. During the past fiscal year 105 sterilizers were shipped to the Philippines, at an approximate cost of \$100 each, making a total of 704 sterilizers which have been shipped to the archipelago since the American occupation. These sterilizers are reported to have been particularly useful during the cholera epidemic, it being necessary, in addition to having pure water for drinking and cooking purposes, that dishes, dish towels, toothbrushes, etc., be washed in sterilized water.

## WATER SUPPLY, SEWERAGE, HEATING, LIGHTING, ETC.

The sum of \$1,096,870.44 was expended during the fiscal year from appropriation "Army transportation" for plumbing; structural water supply, including the boring of artesian wells; sewerage; drainage, etc.; \$620,807.74 for roads, walks, grading, bridges, etc.; \$227,009.62 for wharves, and \$75,369.10 for miscellaneous work in connection with construction and repairs.

The sum of \$405,030.24 was expended from appropriation "Regular supplies" for heating, lighting, cooking apparatus, repairs to bakeries, construction of bakehouses, etc.

Electric wiring has been installed at the new seacoast posts with a view of lighting the same from the fortification plants which the Engineer Department is gradually installing.

## NATIONAL CEMETERIES.

There are 83 national cemeteries under the control of this Department, in which there were interred 1,839 bodies between July 1, 1901, and June 30, 1902, making a total of 346,202 interments in these cemeteries up to the last-mentioned date.

## HEADSTONES.

During the year 13,152 white-marble headstones were provided to mark the graves of known soldiers, sailors, and marines in national, post, city, and village cemeteries.

## OPERATIONS OF THE UNITED STATES BURIAL CORPS.

The permanent burial corps established in the Philippines, referred to in last annual report, has continued the work of disinterring, re-incasing in suitable metal-lined caskets, and shipping to San Francisco, Cal., the remains of officers, soldiers, and (when specially desired by relatives) civilian employees of the Army who died or were killed in these islands. Upon arrival in San Francisco the remains were interred in the national cemetery at that point or shipped to their former homes at public expense when applied for by nearest relatives. The establishment of the burial corps at Manila has enabled the Department to return remains to the United States with the least possible delay, and when death has occurred at places where it is practicable to do so the remains have been embalmed for immediate shipment.

March 25, 1902, cholera broke out in Manila, subsequently becoming epidemic throughout Luzon and the Visayas, and the board of health of Manila refused permission for the burial corps to continue operations. As it is impossible to say how long this epidemic will last, it can not be stated when the disinterment of remains will be resumed, but it is hoped to begin operations in November next. By that time another party of undertakers and embalmers will reach the Philippines and, if permitted to proceed with the work, everything possible will be done to expedite the returning of remains to this country. The bodies of those who died of cholera can not, however, be disinterred within two years from date of burial.

Remains have also been returned from China, Hawaii, Japan, Alaska,

and Cuba, but none from Porto Rico owing to the fact that the period of three years has not expired, which, under the civil law of Porto Rico, is required to elapse before exhumation can be made.

Under an arrangement with the Navy Department, the Quartermaster's Department dis-inters and returns to the States the remains of persons serving in the Navy and Marine Corps who have died or have been killed abroad; the Department is reimbursed by the Navy the expense incurred in doing this. During the fiscal year a total of 27 remains were thus removed and brought to the United States, 18 of which were for the Navy and 9 for the Marine Corps.

The following statement shows that 1,131 bodies of officers, enlisted men, and others were returned to the United States during the fiscal year ended June 30, 1902:

From Philippine Islands.....	1,015
From Honolulu, Hawaii.....	10
From China.....	8
From Japan.....	3
From Cuba.....	30
From Alaska.....	3
Died at sea.....	62
Total.....	1,131

The above remains, together with those at San Francisco at the beginning of the fiscal year, were disposed of as follows: Seven hundred and sixty were returned to relatives and friends, 534 were interred in the Presidio of San Francisco National Cemetery, 14 were interred in the Arlington National Cemetery, and 75 remained at San Francisco, Cal., June 30, 1902, to be disposed of.

The Department has suffered some criticism from relatives and friends on account of delay in shipping remains due to the cholera epidemic, climatic conditions, and the great difficulties at all times to be contended with in the proper performance of this important work. The officers of the Department, however, cognizant of the sacred duty devolving upon them, have shown all possible consideration for the bereaved families and extended every available facility for securing the return of remains with the utmost dispatch, and grateful appreciation of the efforts put forth by the Department, as well as the exceptional liberality of the Government in returning the remains of our honored dead, is expressed in many communications received at this office.

#### CURRENT READING MATTER FOR ENLISTED MEN.

Through this department a large number of newspapers and magazines are furnished for the use of enlisted men of the Army. Last year the sum of \$6,825.81 was expended for this purpose, of which sum \$2,136.30 was for newspapers and magazines for soldiers serving in the Philippines. As newspapers and magazines are obtained by the department at specially low rates, it can readily be seen that the amount expended is sufficient to furnish a very large quantity of reading matter. This reading matter is sent to the post libraries at all military posts in the United States, Porto Rico, Hawaii, and Alaska, and to the chief quartermaster for distribution to posts in the Philippine Islands.



## GENERAL DEPOTS, QUARTERMASTER'S DEPARTMENT.

There are six general supply depots connected with this department, viz, New York, Philadelphia, St. Louis, Jeffersonville, Washington, and San Francisco. To the officers in charge of these depots is intrusted, to a great extent, the important work of procuring for and supplying to the Army the almost innumerable classes of quartermaster's stores, the transporting of the stores, and the furnishing of transportation for the Army. This duty has been performed in a most efficient and satisfactory manner.

## DEPARTMENT OF CUBA.

On May 20, 1902, the Department of Cuba was discontinued, and all the troops in the island were withdrawn except eight companies of artillery. Means of transportation and sufficient supplies for the use of these companies for a limited time were left, and such surplus as could be utilized and was worth the cost of transportation was brought to the United States. The remainder was disposed of by sale, under the general direction of the department commander, and fair prices were realized, especially for animals.

To Capt. C. B. Baker, chief quartermaster, and the other officers of the Quartermaster's Department in Cuba much credit is due for efficient and intelligent performance of duty in connection with the withdrawal of troops and the disposal of the property on hand when the Department of Cuba was discontinued.

## PORTO RICO.

The affairs of the Quartermaster's Department in Porto Rico have been well conducted during the fiscal year and the troops properly supplied.

There was some construction and considerable repair work done in the island, and more is called for.

As stated elsewhere in this report, the depot at San Juan was utilized last May for the shipment of supplies for the relief of the people of Martinique and other islands of the West Indies.

## HAWAII.

Owing to the decrease in the number of troops sent to the Philippines on transports via Honolulu during the past year and the fact that no public animals were shipped, thus eliminating the necessity for the maintenance of the resting corral at that place, the business of the Honolulu depot has been proportionately decreased, resulting in a large saving in the expenses of the department here in the way of supplies, civilian employees, etc.

In the act making appropriations for sundry civil expenses of the Government, approved June 28, 1902, the Secretary of War is authorized "To acquire leases in such lands in Hawaii as have been set aside for purposes of a military post." The matter was under consideration at the close of the fiscal year.

## NAGASAKI, JAPAN.

The depot office at Nagasaki, Japan, is still maintained, and transports from Manila to San Francisco stop there to take on coal for the home trip. When absolutely necessary, transports have had repair work done at Nagasaki, and, through that office, at other points in Japan.

## PHILIPPINE ISLANDS.

The annual report of Col. C. F. Humphrey, chief quartermaster, Division of the Philippines, shows that a great reduction in the expenses of the quartermaster's department in the Philippine Islands was effected during the fiscal year ended June 30, 1902.

## CLOTHING AND EQUIPAGE.

The chief quartermaster reports that the clothing and equipage supplied by this Department for issue to troops in the Philippine Islands has been ample in quantity and of excellent quality; that great demand exists for the chambray and khaki woolen shirts; that the light-weight woolen stockings are considered better adapted to the climate in the Philippines than cotton stockings; that the light-weight woolen blankets are very popular; that the campaign hats furnished have been found generally satisfactory, and that slickers are considered preferable to ponchos.

Many of the enlisted native scouts, being much smaller in stature than the American soldier, can not be fitted from the usual sizes furnished the Army, and clothing made especially for them is required.

## BARRACKS AND QUARTERS.

During the fiscal year there were rented in the Philippine Islands 876 buildings for shelter of officers, troops, and stores; in addition, there were 59 convents, 20 insular government buildings, and 93 buildings belonging to the United States set aside for use of the Army, under provisions of the treaty of Paris, occupied as barracks, quarters, and storehouses, for which no rent was paid.

The building operations during the year were extensive, especially in Manila, where 16 storehouses are under construction, to be completed by September 30, 1902. These structures are on land adjoining the new harbor of Manila, loaned for that purpose by the insular government. They will be of frame with galvanized iron roofs, the lumber being Oregon and Washington fir. The sides will be open, surrounded with a fence, subjecting all parts to observation and supervision at all times. The chief quartermaster remarks that the concentration of supplies at this one point will enable the force of checkers, storekeepers, and laborers to be handled to better advantage than when scattered throughout the city, as heretofore, and no doubt will result in considerable reduction in the number of men required to be employed. When these 16 new storehouses are completed the rented storehouses in the city of Manila for the use of the Quartermaster's and Subsistence departments will be given up.

Congress having made provision for the construction of a military post for the accommodation of a garrison of two full regiments of infantry, two squadrons of cavalry, and two batteries of artillery in the vicinity of Manila, a site consisting of over 2,100 acres of gently rolling country was purchased. This property is situated about one hour's drive from the city, at the confluence of three rivers—the Pasig, Pateros, and Taguig—and is accessible, besides water routes, by two roads from Manila, one through Santa Ana and the other via Pasay. There is deep water at the landing, and a wharf has been constructed to facilitate building operations, and the handling of supplies after the post is completed and occupied. Plans for the troop barracks have been adopted, and the material is being purchased in the United States. The grounds are being graded, brush cut away, and the roads widened, preparatory to the commencement of active building operations.

The only other construction at Manila was the building of a power house for the signal corps at Cuartel Infanteria. Considerable repair work was undertaken, almost every army building in Manila requiring minor repairs. The material for the most of this work was purchased in the United States. Construction of frame and Nipa barracks for troops in the Cagayan Valley, northern Luzon, has been commenced.

#### WATER SUPPLY.

Water is obtained in Manila from the city waterworks, and is distilled before issued to troops. The water supply of the new post of Manila will be procured from wells to be bored, the water to be then distilled.

At most of the stations outside of the city of Manila, it is necessary to depend on wells, streams, and rain water caught from roofs in large tanks and cisterns, for the water supply. Where it is necessary to bring water from a distance the troops have sometimes built bamboo pipe lines, saving the expense of hauling. Condensing plants are supplied at such stations as are recommended by the chief medical officer to be so equipped, and where the garrison is sufficiently large and the water so bad as to justify the expense. There are 6 of these plants at Manila, 2 each at Batangas and the new post of Manila, and 1 each at Aparri, Iligan, Cebu, Lucena, Iloilo, Vigan, Zamboanga, Binan, Cottobato, Malabon, Davao, Masbate, Pasay, and Puerta Princesa. At other stations the sterilizers, of which mention has been made elsewhere in this report, are furnished.

Col. Charles F. Humphrey, assistant quartermaster-general, was the chief quartermaster of the Division of the Philippines during the fiscal year. His administration of the affairs of the Quartermaster's Department was both efficient and able.

Acknowledgment is also due the other officers of the Quartermaster's Department on duty in that distant archipelago for laborious services well performed.

#### TOUR OF INSPECTION BY THE QUARTERMASTER-GENERAL.

Under orders from the Secretary of War I started, in the early part of the fiscal year, on a trip of inspection which extended via San Francisco to the Philippine Islands.

Careful inquiry was made into the affairs of the Quartermaster's Department at Manila, at which point is centered the administrative

charge of the vast business of the Department throughout the archipelago, including the inter-island transport service.

Every facility was extended to me by the division commander and chief quartermaster to aid me in my duties, and, based upon full consultation with them and personal insight into matters pertaining to the Department, steps to be taken looking to the betterment of conditions and reduction in expense where practicable were decided upon.

One of the important conclusions reached was that of concentrating supplies of the Quartermaster's and Subsistence Departments in warehouses to be built on land adjoining the new harbor of Manila, as hereinbefore alluded to. At the close of the fiscal year this work was well under way.

Other points were also visited by me in Luzon, Samar, Panay, Cebu, Mindanao, and Jolo, at all of which the business of the Quartermaster's Department was carefully investigated.

The result of this tour of inspection was made the subject of a special report to the Secretary of War.

#### PERSONNEL.

The following officers are provided by law for the Quartermaster's Department:

Quartermaster-General, with rank of brigadier-general .....	1
Assistant quartermasters-general, with rank of colonel .....	6
Deputy quartermasters-general, with rank of lieutenant-colonel .....	9
Quartermasters, with rank of major .....	20
Quartermasters, with rank of captain .....	60
Total .....	96

During the fiscal year Col. James M. Moore, assistant quartermaster-general, Maj. Francis B. Jones, and Capt. Jonathan N. Patton, quartermasters, retired from active service; Capt. Nathan P. Batchelder, quartermaster, resigned, and Lieut. Col. Charles Bird, deputy quartermaster-general, was promoted to the rank of brigadier-general, U. S. Army, on May 5, 1902. This office had the benefit of the valuable services of the latter officer up to the time of his retirement, June 17, 1902.

#### OFFICERS DETAILED FOR DUTY IN THE QUARTERMASTER'S DEPARTMENT.

During the fiscal year, under authority contained in section 36, act of Congress approved February 2, 1901, 6 vacancies in the department were filled by detail of line officers of the Army. There were 9 detailed officers on duty in this department at the close of the fiscal year.

#### POST QUARTERMASTER-SERGEANTS.

Of the 150 post quartermaster-sergeants authorized by law, 146 were in service at the close of the fiscal year. The number of such sergeants now authorized is found inadequate to supply the requirements at posts and stations in the United States, Alaska, Hawaii, Porto Rico, and the Philippine Islands, and it is recommended that Congress be asked to authorize the appointment of at least 25 more post quartermaster-sergeants.

Under the regulations applicants for appointment as post quartermaster-sergeants must have had four years' service in the Army, have

reached the grade of sergeant, and are subject to examination before appointment, thereby insuring competent and trustworthy men for the important duties they are called upon to perform. Moreover, by their employment the cost of civilian clerical help is reduced.

DETACHMENT OF ARMY SERVICE MEN, QUARTERMASTER'S DEPARTMENT,  
WEST POINT, N. Y.

The quartermaster commanding this detachment reports 150 enlisted men in service at the close of the year, all of whom performed their work satisfactorily.

CIVILIAN EMPLOYEES, QUARTERMASTER'S DEPARTMENT AT LARGE.

The number of employees has been adjusted to the lowest limit consistent with the best interests of the service.

CIVILIAN EMPLOYEES, QUARTERMASTER-GENERAL'S OFFICE.

There are 220 clerks and other employees authorized for this office. The temporary emergency force was brought into the classified service under authority of Congress, approved April 28, 1902.

I take pleasure in acknowledging the faithful and efficient services of the clerical force in this office, to whom credit is due for successful efforts to prevent the great volume of work from falling in arrears.

CONCLUSION.

In concluding this report I desire to express my full appreciation of the zealous and helpful cooperation extended to me by all the officers of the corps in the administration of the affairs of the department.

The officers associated with me in this office during all or part of the fiscal year were Lieutenant-Colonels Bird and Patten; Majors Ruhlen, Martin, Long, Hodgson, and French; Captains Carson, Baker, and Dare. I am indebted to them for faithful and efficient assistance in conducting the business of this office.

M. I. LUDINGTON,  
*Quartermaster-General, U. S. Army.*

The SECRETARY OF WAR.

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**REPORT OF THE COMMISSARY-GENERAL.**

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REPORT  
OF  
THE COMMISSARY-GENERAL.

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WAR DEPARTMENT,  
OFFICE COMMISSARY-GENERAL,  
*Washington, D. C., October 11, 1902.*

SIR: I have the honor to submit the following report of the operations of the Subsistence Department for the fiscal year ending June 30, 1902:

RESOURCES, EXPENDITURES, AND BALANCES.

The following statement exhibits the aggregate fiscal resources and expenditures of the department and the balances at the close of the fiscal year 1902:

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## RESOURCES.

Relief of citizens of the French West Indies act approved May 18, 1902.	Subsistence of the Army, Certified Army, Jan. 1, 1899.	Subsistence of the Army, 1899.	Subsistence of the Army, 1900.	Subsistence of the Army, 1901.	Subsistence of the Army, 1902.
Amounts in the Treasury to the credit of the appropriations of the Subsistence Department, June 30, 1901.			\$854,938.96	\$2,428,645.67	
Amounts which were reported in the last annual report (as also in supplemental financial statement of Jan. 6, 1902) as being to the credit of officers of the Subsistence Department and of officers doing duty in the Subsistence Department with the Treasurer, assistant treasurers, designated depositaries, and fiscal agents of the Government, and in their personal possession on June 30, 1901.		\$3,534.15	55,084.26	1,153,003.18	
Amounts refunded to the Treasury near close of fiscal year 1901, since carried to the credit of the appropriations.	\$18.61		139.86	12.73	
Amounts appropriated for the subsistence of the Army for the fiscal year ending June 30, 1902.					\$13,022,750.00
Act, Mar. 2, 1901.					
Deficiency act, Feb. 14, 1902.					
Amount of war appropriation warrant No. 13 (in part)	\$75,000.00				
Amounts collected from various sources and refunded to the appropriations of the Subsistence Department on the books of the Treasury during the fiscal year 1902.		154.61	11,571.11	101,049.58	42,877.18
Amounts charged against officers on account of funds alleged to have been lost by them, etc., for which relief can only be obtained in the Court of Claims, under sections 1059 and 1062, Revised Statutes, or from Congress, as follows:					
Officers still in service.		178.88	111.93	1,236.59	
Officers out of service.					
Amounts received by officers of the Subsistence Department and by officers doing duty in the Subsistence Department from sales of subsistence stores during the fiscal year 1902 and taken up for immediate disbursement.			2,069.76	8,027.46	3,184,640.12
Amounts taken up by officers doing duty in the Subsistence Department on account of refunds and reclamations for stores lost, damaged, etc., in correction of errors in their accounts, etc., during above period.			44.40	1,171.76	68,087.08
Amount taken up by officers as gains.			540.00		6,844.92
Amounts taken up by officers unexplained.			3,280.30	414.47	31,788.17
Total resources.	75,000.00	178.22	925,602.01	3,714,561.27	16,857,044.87

EXPENDITURES.

Amounts expended, on the books of the Treasury, from the appropriations of the Subsistence Department during the fiscal year 1902.						\$229,971.00	\$397,116.08
Amounts disbursed by officers of the Subsistence Department and officers doing duty in the Subsistence Department during the fiscal year 1902.	\$70,583.56					275,192.33	9,149,451.97
Amounts dropped by officers doing duty in the Subsistence Department, in correction of errors in their accounts during the fiscal year 1902.						340.35	618.71
Amounts carried to the surplus fund on June 30, 1902 (act June 20, 1874).		159.47					
Error in Treasury, in covering into appropriation 1902, should have been in special appropriation, Relief of citizens of the French West Indies.							4,416.44
Amounts of balances unaccounted for by officers whose accounts are in process of settlement.			4,430.78				
Amounts charged against officers on account of funds alleged to have been stolen, etc., now dropped from this financial statement.				178.88			
Total expenditures.....	70,583.56	7,805.59	173.22	17,251.06	904,674.27	665,563.68	9,551,603.15

BALANCES.

Amounts in the Treasury to the credit of the appropriation of the Subsistence Department June 30, 1902.						\$2,998,274.57	\$5,985,664.17
Amounts to the credit of officers of the Subsistence Department and of officers doing duty in the Subsistence Department with the Treasurer, assistant treasurers, designated depositaries, and fiscal agents of the Government, and in their personal possession, per the latest accounts received to June 30, 1902.					\$20,827.74	107,657.43	816,354.72
Amounts refunded to the Treasury near close of fiscal year 1902, but not carried to the credit of the appropriations by June 30, 1902.	\$4,416.44						2,468.79
Amounts charged against officers on account of funds alleged to have been lost by theft, etc., or which relief can only be obtained in the Court of Claims, under sections 1651 and 1652, Revised Statutes, or from Congress, as follows: Officers still in service.....						920.00 1,255.59	959.04
Total balances.....	4,416.44				20,827.74	3,109,857.59	6,805,441.72

In the expenditures above reported for the fiscal year 1902, the following items of disbursement are included: Commutation of rations to enlisted men on furlough, \$41,621.11; to ordnance sergeants of posts not garrisoned, \$3,249.20; to enlisted men on duty where rations could not be issued conveniently, \$102,776.88; to enlisted men while traveling, \$48,719.40; commutation of fresh vegetables, \$5,895.55; special diet for enlisted men in Army and Navy General Hospital, Hot Springs, Ark., \$8,220.80; meals for recruiting parties and recruits and troops moving, \$227,284.98; liquid coffee for troops traveling, \$26,902.15; salaries of civil employees of Subsistence Department at posts and stations, including wages of laborers and mechanics, fees of inspectors, and miscellaneous small employments, \$366,749.72; wages paid civil employees of Subsistence Department on transports, \$304,092.59; board wages of civil employees of transports while ashore, \$21,667.80; extra duty pay, \$19,769.21; advertising and commercial newspapers, \$4,491.34; printing, \$2,125.33; rent of telephones, \$1,595.81; ice for issue to troops and for refrigerating purposes (45,596,645 pounds), \$233,569.07.

The following items of disbursement were made in the fiscal year 1901, but could not be included in the report for that year by reason of the delay in receiving the accounts at this office: Commutation of rations to enlisted men on furlough, \$3,875.05; to ordnance sergeants at posts not garrisoned, \$121.20; to enlisted men on duty where rations could not be issued conveniently, \$7,249.45; to enlisted men while traveling, \$230.75; special diet for enlisted men in Army and Navy General Hospital, Hot Springs, Ark., \$910.40; meals for recruiting parties and recruits and troops moving, \$5,157.83; liquid coffee for troops traveling, \$184.29; salaries of civil employees of Subsistence Department at posts and stations, including wages of laborers and mechanics, fees of inspectors, and miscellaneous small employments, \$10,947.52; wages paid civil employees of Subsistence Department on transports, \$18,774.46; board wages of civil employees of transports while ashore, \$1,608.25; extra-duty pay, \$73.85; advertising and commercial newspapers, \$726.09; printing, \$234.57; rent of telephones, \$61.10; ice for issue to troops and for refrigerating purposes (1,740,452 pounds), \$14,622.28.

#### HOSPITAL ISSUES.

The supplies purchased and issued from stock on hand during the fiscal year for enlisted men in hospital, too sick to use the army ration, amounted in value to \$436,255.28.

Like issues were made in fiscal year 1901, amounting in value to \$12,255.63, but not included in said report, owing to the delay in the receipt of the accounts and returns in this office.

Issues of articles, differing from those of the ration, to enlisted men in camp in the United States during periods of recovery from low conditions of health, consequent upon service in unhealthy regions or in debilitating climates, aggregated in value \$22,900.86.

*Statement of the value of subsistence supplies issued to Filipino convicts, civil scouts, native scouts, destitutes, civil employees (linemen of the Signal Corps), during the fiscal year 1902, and of the amounts reported as collected from public civil funds of the Philippine Islands by Col. C. A. Woodruff, A. C. G., chief commissary, Division of the Philippines.*

CONVICTS.

When issued.	Value.	Reported as collected on account of issues.	Amount.
Balance due and uncollected for fiscal year 1901.....	\$10,632.55	August, 1901.....	\$3,943.53
Delayed statement of issues in fiscal year 1901.....	3,388.82	October, 1901.....	2,598.64
		February, 1902.....	70.78
	14,021.37	Uncollected.....	7,408.42
			14,021.37
Balance due and uncollected for fiscal year 1901.....	7,408.42		
July, 1901.....	2,413.59	July, 1901.....	868.90
August, 1901.....	2,070.35	August, 1901.....	657.79
September, 1901.....	1,963.44	September, 1901.....	576.67
October, 1901.....	1,801.41	October, 1901.....	434.61
November, 1901.....	1,674.66	Uncollected.....	15,759.29
December, 1901.....	1,531.10		
January, 1902.....	1,523.28		
February, 1902.....	1,403.57		
March, 1902.....	1,188.97		
April, 1902.....	1,105.71		
May, 1902.....	1,254.27		
June, 1902.....	366.91		
	18,297.26		18,297.26
Balance due and uncollected for fiscal year 1902.....	15,759.29		

CIVIL SCOUTS.

July, 1901.....	\$395.99	July, 1901.....	\$209.45
August, 1901.....	405.61	August, 1901.....	354.75
September, 1901.....	357.45	September, 1901.....	337.07
October, 1901.....	294.46	Uncollected.....	3,223.29
November, 1901.....	269.46		
December, 1901.....	325.30		
January, 1902.....	308.51		
February, 1902.....	474.72		
March, 1902.....	584.12		
April, 1902.....	703.04		
May, 1902.....	5.30		
June, 1902.....			
	4,124.56		4,124.56
Balance due and uncollected for fiscal year 1902.....	3,223.29		

NATIVE SCOUTS.

<i>Fiscal year 1901.</i>			
Balance due and uncollected as reported to date for issues in fiscal year 1901.....	\$51,002.95	November, 1901.....	\$11,189.17
	51,002.95	February, 1902.....	1,591.09
		Uncollected.....	38,222.69
			51,002.95
Balance due and uncollected for fiscal year 1901.....	38,222.69		
<i>Fiscal year 1902.</i>			
July, 1901.....	16,382.50	July, 1901.....	6,203.42
August, 1901.....	18,386.29	August, 1901.....	9,395.10
September, 1901.....	17,814.73	September, 1901.....	8,175.07
		Uncollected.....	28,809.93
	52,583.52		52,583.52
Balance due and uncollected for fiscal year 1902.....	28,809.93		

Statement of the value of subsistence supplies issued to Filipino convicts, etc.—Continued.

## DESTITUTES.

When issued.	Value.	Reported as collected on account of issues.	Amount.
<i>Fiscal year 1901.</i>			
Balance due and uncollected for fiscal year 1901 .....	\$1,081.15	February, 1902.....	\$51.24
Delayed statement of issues in fiscal year 1901 .....	488.91	Uncollected .....	1,468.82
	1,520.06		1,520.06
Balance due and uncollected for fiscal year 1901 .....	1,468.82		
<i>Fiscal year 1902.</i>			
July, 1901 .....	919.58	July, 1901.....	48.81
August, 1901.....	1,054.27	August, 1901.....	215.67
September, 1901.....	558.97	September, 1901.....	82.37
October, 1901.....	240.04	October, 1901.....	18.26
November, 1901.....	367.03	Uncollected .....	3,913.83
December, 1901.....	262.18		
January, 1902.....	112.75		
February, 1902.....	149.80		
March, 1902.....	240.93		
April, 1902.....	238.64		
May, 1902.....	123.93		
June, 1902.....	11.37		
	4,278.94		4,278.94
Balance due and uncollected for fiscal year 1902.....	3,913.83		

## CIVIL EMPLOYEES (LINEMEN OF SIGNAL CORPS).

January, 1902 .....	\$73.83	Uncollected .....	\$2,660.83
February, 1902.....	10.84		
March, 1902.....	515.77		
April, 1902.....	766.07		
May, 1902.....	838.63		
June, 1902.....	455.59		
	2,660.83		2,660.83
Balance due and uncollected for fiscal year 1902.....	2,660.83		

Statement of the value of subsistence stores issued to sailors and others and transferred to officers of the United States Navy, and of amounts of same that have been collected.

Issued and transferred.	Value.	Collected.
Issued on transport—		
Hancock.....	\$577.75	\$577.75
Kilpatrick.....	5.40	5.40
Logan.....	5.94	
McClellan.....	45.00	45.00
Sheridan.....	21.25	21.25
Thomas.....	21.00	
Warren.....	151.25	63.75
Transferred to Asst. Paymaster P. W. Delano, U. S. Navy, Guam.....	1,881.92	1,881.92
Transferred to Asst. Paymaster F. G. Pyne, U. S. Navy, Guam.....	8,923.34	752.75
Uncollected.....		8,280.08
	11,632.85	11,632.85
Balance due and uncollected for fiscal year 1902.....	8,280.08	

Claims have been made on the Navy Department for such of the above sums as have not yet been settled.

Statement of the value of subsistence stores issued to marines, and transferred in bulk to officers of the Marine Corps for issue to marines, and of amounts collected on account of same.

Issued and transferred.	Value.	Collected.
<b>Marines at—</b>		
San Juan, P. R. ....	\$4,686.47	\$3,882.77
Balangiga, P. I. ....	4,092.85	75.55
Bacoor, P. I. ....	6,141.37	2,924.45
Balabac, P. I. ....	143.97	.....
Basey, P. I. ....	7,301.01	225.88
Cavite, P. I. ....	43,114.17	28,697.62
Isabela de Basilan, P. I. ....	4,610.53	2,595.34
Lamang, P. I. ....	106.04	.....
Malabrigo light-house, P. I. ....	8.99	.....
Olongapo, P. I. ....	11,094.86	1,338.36
Parang, P. I. ....	422.92	.....
Pambujan, P. I. ....	156.59	.....
Pollok, P. I. ....	1,508.69	1,438.63
Tacloban, P. I. ....	3.60	.....
Marines on island of Guam .....	956.34	.....
<b>Marines on transport—</b>		
Hancock .....	1,069.25	.....
Logan .....	.70	.....
Sheridan .....	1,094.75	8.50
Sherman .....	650.00	.....
Warren .....	3,179.45	.....
Uncollected .....	.....	49,065.45
	<u>90,242.55</u>	<u>90,242.55</u>
Balance due and uncollected for fiscal year 1902 .....	49,065.45	.....

Claims have been made on the Navy Department for such of the above claims as are still due.

*Issues to Indians.*

	Value.
Apache Indians at Fort Sill, Okla. ....	\$11,956.68
Chiricahua Indian at Fort Grant, Ariz. ....	62.87
Seminole Negro Indian .....	62.03
Indians in Alaska .....	407.56
Visiting Sioux Indians at Fort DuChesne, Utah .....	2.30

*Issues to civil employees.*

Civil employees (Quartermaster, Commissary, and Ordnance departments, and the Signal Corps) .....	324,370.67
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*Miscellaneous issues.*

Military prisoners at posts (general prisoners) .....	78,633.97
Filipino insurgent prisoners deported to Guam .....	1,114.89
Filipino insurgent prisoners captured and in arrest .....	90,467.23
Filipino military convicts .....	3,270.78
American civil prisoners in the Philippines .....	54.13
American civil prisoners in Alaska .....	6.93
Destitute citizens in United States .....	8.44
Destitute citizens in Alaska .....	158.17
Sufferers by storm in Louisiana in August, 1901 .....	25.88
The following issues were made in fiscal year, 1901, but not included in said report, the returns of subsistence stores being delayed in arriving in this office:	
Filipino insurgent prisoners deported to Guam .....	372.22
Filipino insurgent prisoners captured and in arrest .....	8,607.73

## SALES OF SUBSISTENCE STORES.

The amounts received from sales of subsistence stores during the fiscal year are classifiable as follows:

From whom or on what account received.	Subsistence of the Army.		
	1900.	1901.	1902.
For relief of citizens, French West Indies.....			\$8, 124. 59
To officers.....	\$299. 37	\$657. 37	777, 260. 35
To enlisted men, companies, detachments, and hospitals.....	1, 767. 39	5, 185. 05	1, 645, 670. 90
To civilians.....	3. 00	669. 69	276, 347. 70
At auction.....			31, 275. 46
To Quartermaster's Department.....			2, 503. 98
To post exchange.....			78, 146. 31
To Indians.....			122. 91
To Indian agents and employees.....			3, 226. 56
To meals on transports.....		1, 614. 35	221, 051. 15
To naval officers and enlisted men of Navy.....			13, 064. 83
To post bakeries.....			29. 88
To natives (Filipino).....			128, 625. 67
To post laundry.....			241. 54
To Department of Agriculture.....			31. 00
To court officials, Alaska.....			1, 113. 51
To special sales.....			168. 36
To transport Troquois.....			2, 555. 14
To United States Coast and Geodetic Survey, Pathfinder.....			70. 25
<b>Total.....</b>	<b>2, 069. 76</b>	<b>8, 027. 46</b>	<b>3, 184, 640. 12</b>

The accounts containing reports of amounts received for sales of stores in the fiscal years 1900 and 1901 were not received in this office in time to appear in the annual reports of those years.

## SALES ON CREDIT.

Sales on credit to officers of the Army during the fiscal year ended June 30, 1902, as shown by the accounts of that year thus far received, amount to \$21,538.22, and the sums thus far reported as collected through the pay department, and otherwise settled, amount to \$17,737.20, leaving the sum of \$3,801.02 yet to be collected.

The sales on credit to the enlisted men of the Army amount to \$65,177.61; the collections by the pay department, on muster and pay rolls and on final statements, on account of credit sales, amount to \$52,007.75, leaving still to be collected \$13,169.86.

Sales on credit to enlisted men of both the Regular and Volunteer Army during the previous fiscal year, not heretofore reported by reason of delay in receipt of accounts, amount to \$886.74, and the collections through the pay department amount to \$12,005.32, leaving still to be collected on account of credit sales in that year, \$1,179.22.

## SALES OF CONDEMNED STORES AND PROPERTY.

From the returns thus far received and examined, the stores condemned and sold in the fiscal year ended June 30, 1902, are shown to have been as follows:

	Subsistence stores condemned and sold.
Original cost of stores condemned.....	\$940, 750. 23
Realized from sales of such stores (also including property) ordered sold.....	31, 275. 46
<b>Loss.....</b>	<b>308, 474. 77</b>

No separate statement of the value of subsistence property condemned having been kept, the amount realized for such as was condemned and ordered sold is merged in above sum of \$31,275.46.

The value of stores condemned in previous fiscal year, which was not included in the annual report of that year, by reason of delay in receipt of returns showing same, was \$26,544.01, and the amount realized through sale of such as was ordered sold was \$1,256.58.

## POST COMMISSARY SERGEANTS.

The number of post commissary sergeants in the service at the beginning of the year was 187, although 189 was the number stated in my last annual report, which discrepancy is due to the fact that two were discharged, but the information was not received at this office in time to be considered. During the period of this report 31 were appointed, 15 were discharged, 3 retired, and 3 died, leaving 197 in the service at the end of the year.

*Number of claims on hand, received and disposed of during the fiscal year ending June 30, 1902.*

	Claims for commutation of rations.		Total.
	While held as prisoner of war in rebel States.	While on furlough, and miscellaneous claims.	
There were on hand June 30, 1901.....	5	4	9
Received during the fiscal year.....	272	221	493
Total.....	277	225	502
Disposed of during the year.....	270	215	485
On hand June 30, 1902.....	7	10	17

The number of letters, indorsements, and postal cards written during the year in connection with the above claims was 1,225.

*Statement of accounts current and returns on hand June 30, 1901, received and examined during fiscal year ending June 30, 1902, and on hand at the close of that fiscal year awaiting examination.*

	Accounts current.	Returns of stores.	Returns of property.	Total.
On hand June 30, 1901.....	790	1,576	261	2,627
Received during fiscal year 1902.....	6,403	4,948	2,089	13,440
Total.....	7,193	6,524	2,350	16,067
Examined during year.....	6,520	5,743	1,941	14,204
On hand June 30, 1902.....	673	781	409	1,863

The examination of the accounts current required the verification of 116,829 vouchers; the returns of subsistence stores, 84,850; and returns of subsistence property, 5,513 vouchers.

In connection with the examinations, 7,137 postal cards were used, and 7,824 letters and 6,488 indorsements written and recorded, 8,052 papers copied, and 793 days of time on unclassifiable work consumed.



Contracts for subsistence to the number of 467 and for meals for recruiting parties and recruits to the number of 493, total 960, were acted on and disposed of during the year.

Certificates of service as acting commissary were issued to the number of 770, and certificates of nonindebtedness to the number of 1,608.

#### WITHDRAWAL FROM CUBA.

The closing days of the fiscal year marked the withdrawal of the United States from Cuba and the recall of the military forces of the Government with the exception of small garrisons which were intended to remain and be attached to the Department of the East. While the event of withdrawal was anticipated and largely discounted, still there were vexatious questions and details to be settled, and the Subsistence Department was fortunate in having as chief commissary of the Department of Cuba an officer of the wide experience and sound judgment of Lieut. Col. W. L. Alexander to deal with the situation.

Under the provisions of General Orders, No. 31, A. G. O., 1902, the troops which were to remain in Cuba were to be provided with three months' rations and stores for sales, with the necessary amount of commissary property. All other stores and property not needed or provided for were to be sold at auction after due advertising of not less than ten days in the island.

Lieut. Col. W. L. Alexander, chief commissary of the Department of Cuba, under date of May 16, 1902, in submitting his annual report stated:

In anticipation of the withdrawal of the troops from the island, supplies have been so shifted about during the year as to place all posts as nearly as possible on an equality as to the stock on hand. By doing this, making the requisition period as short as it could be made with safety, and carefully cutting down all calls for stores to the lowest limit possible, the Department was in good condition for the work to be done when the order came directing the withdrawal of the troops on May 20.

The wisdom of the provisions of G. O. 31, H. Q. A., A. G. O., 1902, directing the sale of stores and property belonging to the Subsistence Department was fully demonstrated by the results. There were supplies on the island that came here in 1898 and 1899, brought when purchases were large, deliveries were required in great haste, and conditions not favorable for the careful inspection usually given by purchasing officers. The continual withdrawal of troops from the island in 1899 and 1900 made it difficult to estimate what would be required. Notwithstanding these conditions, a comparatively small amount of supplies remained to be sold at auction. \* \* \* My experience in closing out the stock in Cuba convinces me that it would be most advantageous to the Government if a similar disposition could be made of subsistence supplies that from legitimate causes accumulate at any army post. It would, of course, have to be done under rigid rules formulated by the Commissary-General, and never without his specific authority.

The posts remaining on the island, and that will hereafter form part of the Military Department of the East, have been supplied—either in kind or by orders for shipment made on purchasing commissary, New York City, to include August 31, 1902—in all except fresh beef and fresh vegetables. These are covered by contracts up to and including June 30, 1902, and after that date the commissaries of the several posts are authorized to purchase these articles monthly in such quantities as may be required. The chief commissary, Department of the East, has been advised of the action taken in the matter.

The total amount realized from the above-mentioned auction sales, which were made at Baracoa, Guantanamo, Hamilton Barracks, Habana, Holguin, Camp Mackenzie and Manzanillo, was \$14,526.10, being about 50 per cent of the invoice price, which was an excellent realization when it is considered that the per cent in all cases was mate-

rially reduced by articles that were entirely worthless and that had been on the island since 1898-99. Comparatively nothing was sold that was fresh and from recent purchases, stores of this description being left for the current supply of the artillery that remained on the island.

## RELIEF OF CITIZENS OF THE FRENCH WEST INDIES.

On May 8, 1902, an earthquake and volcanic eruption occurred in the island of Martinique, in the French West Indies, and resulted in an appalling loss of life and rendered thousands homeless and destitute, with the direful threat of famine impending.

Upon the prompt recommendation of the President of the United States the Congress appropriated (by act approved May 13, 1902) the sum of \$200,000 to procure and distribute among the suffering and destitute people of the French West Indies provisions and necessary articles, and to take such other steps deemed advisable for the purpose of rescuing and succoring the people imperiled and threatened with starvation. Of the total amount appropriated, the sum of \$75,000 was allotted to the Subsistence Department to procure food supplies for the sufferers.

The U. S. S. *Dixie* was designated to transport the supplies and Capt. H. J. Gallagher, of the Subsistence Department, was selected to take charge of the supplies aboard and make the distribution of them. Below are the full instructions to Captain Gallagher:

OFFICE OF THE COMMISSARY-GENERAL,  
Washington, May 13, 1902.

Capt. H. J. GALLAGHER,  
Commissary,

(Care of Purchasing Commissary), New York, N. Y.

CAPTAIN: It is the wish of the Secretary of War that in the performance of the duty to which you have been assigned, viz, the distribution of stores to the afflicted in the French West Indies, you proceed with the ship from place to place and transfer the stores to the local authorities for distribution, you remaining with the ship and returning thereon. Take receipts from local authorities for stores transferred, and expend such moneys as may be necessary in the delivery of the stores.

Very respectfully,

JOHN F. WESTON, *Commissary-General.*

Maj. D. L. Brainard, the purchasing commissary at New York, was charged with the purchase of these supplies. He was directed to procure \$70,000 worth of bacon, hard bread, codfish, rice, tea, coffee, sugar, salt, pepper, vinegar, condensed cream, canned chicken soup, etc., and to furnish Captain Gallagher with \$5,000 in cash, to be used by him for incidental expenses in delivering these stores to the proper parties at the different ports where the *Dixie* might touch.

Major Brainard proceeded to procure the supplies. The following are the quantities and their value:

Bacon, 65,375 pounds.....	\$7, 502. 54
Codfish, 171,100 pounds.....	7, 520. 94
Flour, 85,000 pounds.....	1, 776. 50
Hard bread, 214,433 pounds.....	9, 123. 52
Baking powder, 3,024 pounds.....	555. 66
Rice, 995,500 pounds.....	34, 238. 61
Coffee, 16,000 pounds.....	2, 125. 00
Tea, 4, 008 pounds.....	1, 402. 80
Sugar, 80,000 pounds.....	2, 992. 00
Vinegar, 516 gallons.....	61. 92
Salt, 4,000 pounds.....	15. 20

Pepper, 250 pounds .....	\$57. 50
Matches, 14,400 boxes .....	55. 00
Can openers, 1,468 .....	30. 68
Ham, 6,164 pounds .....	644. 84
Jelly, currant, 1,440 cans .....	380. 00
Milk, 9,600 cans .....	724. 00
Soup, 4,800 cans .....	750. 00

The total cost of which amounted to..... 69,936. 71

Major Brainard was also designated to take charge of the Citizens' Relief Association contributions for the sufferers in the French West Indies, and Capt. H. G. Cole was ordered to report to him to assist in the performance of the work.

Under date of May 16, in a memorandum to the Secretary of War, I had the honor to state:

At 1 o'clock on the 12th instant I received instructions from the Adjutant-General of the Army to purchase \$70,000 worth of stores for the sufferers at Martinique. At 1.30 o'clock Major Brainard, the purchasing commissary at New York, had these instructions by telephone, was buying at 2.30, and the whole shipment of commissary stores, over 900,000 pounds, was aboard the *Dixie* at 8.53 p. m. on the 14th. Captain Gallagher, in charge, took with him \$5,000 to defray incidental expenses. There were also put aboard 25,000 pounds medical stores, 115,000 pounds quartermaster stores, 14,950 pounds food stuffs from the New York Journal, and 14,000 same from the New York World. Allowing 1 pound to the ration, the subsistence stores belonging to the Government, at 1 pound per day, will subsist 50,000 people for better than thirty-six days.

*Statement.*

Total amount of appropriation allotted to the Subsistence Department ..	\$75,000. 00
Amount of stores sent from New York .....	\$69,936. 71
Payment for hire of labor at New York .....	119. 56
Payment for labor, transportation, and telegrams by Captain Gallagher .....	527. 29
	<hr/>
	70,583. 56
Balance .....	<hr/>
	4,416. 44

Leaving a balance on hand of \$4,416.44, from which sum the Subsistence Department is to be reimbursed for the amount of subsistence stores sent from San Juan, P. R. (\$1,948.01), and which, owing to the extreme urgency of the case, had been ordered by the Secretary of War hurried forward from San Juan to the scene of disaster and suffering.

The following are the quantities referred to which were placed aboard the U. S. collier *Sterling* by Capt. J. T. Crabbs, assistant quartermaster and acting depot commissary at San Juan, and were among the first stores to reach their destination:

5,038 pounds bacon, issue .....	\$553. 68
1,632 1-pound cans salmon .....	175. 44
20,000 pounds flour, issue .....	446. 00
900 pounds hard bread .....	49. 50
3,000 pounds beans .....	89. 70
3,000 pounds rice .....	172. 50
5,050 pounds sugar, issue .....	200. 99
500 pounds salt, issue .....	2. 20
528 cans milk, condensed .....	62. 04
480 cans milk, evaporated .....	33. 60
1,980 pounds coffee, ground, issue .....	162. 36

The total cost of which amounted to..... 1,948. 01

Captain Gallagher was directed by the Secretary of War to report by cable upon the condition of affairs in the islands, and to state whether the supplies taken were sufficient to meet wants and for how long. He replied by cable from Fort de France under date of May 21:

Effects of eruption confined to North American portion of island. St. Pierre and neighboring villages totally destroyed. Thirty thousand a fair estimate of loss of life of zone of destruction. Physical condition normal but people panic stricken. This condition was increased by yesterday's eruption, which was quite severe, but did not materially add to desolation. Supplies of all kinds sufficient for eight weeks. What has been done was just what the emergency demanded, and nothing further can be suggested. Government and people most grateful. *Dixie* now discharging part of cargo. Will proceed with what remains to St. Vincent.

GALLAGHER.

Captain Gallagher, in the course of a detailed report, dated June 13, 1902, to the Adjutant-General of the Army, in regard to the mission with which he was charged, said:

I wish to invite special attention to the willing and energetic manner in which the sailors aboard the *Dixie* labored in loading and unloading the stores on this expedition. They labored unceasingly when there was anything to do, without a murmur, and the rapidity with which the stores were handled was due to their energy and willingness. Their hearts seemed to be in their work, and, encouraged by their splendid officers, nothing seemed to tire them. The stores were well selected, and met the needs of the people. By the destruction of St. Pierre, Martinique, the great storehouse and source of supplies of the island was lost, consequently many of the necessities of life were not available for the people, and nothing could have been more opportune than the arrival of the *Dixie*. The wants of the needy people were promptly and efficiently relieved, and on all sides I heard the people murmur their blessings on the American Government for sending assistance to them in this emergency. The same can be said of St. Vincent, where perhaps there were more people thrown upon the public, because many in the area of devastation escaped with their lives, while but few escaped at St. Pierre. From its conception to its conclusion the expedition was one in which the American people may feel a pardonable pride; it was a noble and generous thought that conceived it; it was timely in reaching its destination; it was most gratefully received by officials and people; and I hope I will be pardoned when I say that the officers appointed to carry out the will of the Government on this occasion, while performing their duty as ordered, could not help being filled with an extraordinary pride in the fact that they had been chosen to perform duty in connection with this completely successful and most humane expedition.

Great credit is due Captain Gallagher for the manner in which he discharged the humane and delicate mission with which intrusted, and demonstrates, as other occasions have gone to prove—Cuba and China—that he is notably a man for emergencies.

The following is an extract from a letter of thanks from his excellency R. B. Lewelyn, governor of the Windward Islands, to W. R. Corwine, esq., of the associated charities, New York, for the relief of the West Indian sufferers:

May I beg you to convey to Maj. David Brainard, commissary, United States Army, who so kindly collected the articles, my most cordial thanks to him and all who contributed on behalf of the sufferers from the eruption, who should ever gratefully remember the very generous and liberal help given to them at this time by the inhabitants of the United States of America.

#### ESTABLISHMENT OF PURCHASING DEPOT AT KANSAS CITY.

During the fiscal year a new subsistence depot was established at Kansas City for the purchase of subsistence stores, and especially with a view of securing a larger market for the supply of salt meats and meat products for the Army, which articles had been largely purchased in Chicago, particularly those for the supply of the Philippines.

In order to still further widen the field of competition and give the Government the benefit of the best market and prices, purchases of these articles were also authorized to be made at Omaha, especially those intended for consumption in the Philippines. By this means the Government is assured of the keenest competition in the three largest packing centers in the world—Chicago, Kansas City, and Omaha, in the order named.

Experienced officers with a practical knowledge of meats and meat products, and with special training in methods for curing them, were assigned to duty in this connection, which affords security to the Government against any mistakes which officers without special training in this most important work are liable to make.

#### DEPOT AT HONOLULU.

This depot has furnished supplies for the troops stationed in the Hawaiian Islands. Maj. W. W. Robinson, jr., quartermaster, and for a time acting depot commissary at Honolulu, states in a letter of November 14, 1901, addressed to Maj. W. H. Baldwin, purchasing commissary at San Francisco, who filled the requisitions for this depot:

I desire to express to you my appreciation of the efficient and considerate manner in which this depot has been supplied with commissary stores during my administration as depot commissary since the 9th of last February. I am glad to be able to say that not a single complaint has ever been made to me regarding the quality and sufficiency of commissary stores required here, either for issue to troops or sales to officers or men.

Due also to your kindly spirit of accommodation in the matter of exceptional stores, our messes have been constantly well supplied with fresh vegetables, fruit, etc., and I have never seen better service since I have been in the Army than we have been able to have here under your administration of the Subsistence Department in San Francisco.

Great credit is due Major Baldwin for the very satisfactory manner in which he has discharged the arduous and exacting duty of purchasing commissary at San Francisco during the year, while his management of the transport service has been all that could be desired.

#### TOUR OF INSPECTION OF GEN. JOHN F. WESTON.

Instructions contained in the letter of the honorable Secretary of War of June 13, 1901, modified by letter of July 24, 1901, directed me to proceed to Manila and such other points in the Philippines as I might deem necessary to carry out such instructions. I had the honor to submit, under date of August 23, 1901, from Manila, a special report dealing with subsistence affairs in the Philippine Islands. Among other features recommended were consolidation of warehouses at Manila, the abandonment of outlying subsistence depots, the transfer of surplus stores to the general supply depot at Manila, the sale of a lot of surplus stores at public auction, and that certain others be returned to the United States. My aim was concentration and reduction all along the line. The recommendations made have, as far as practicable, been carried out. Better but not sufficient storage facilities are now available, labor has been saved, expenses curtailed, the stores returned to the United States have nearly all been disposed of by issue and sales, and efforts are still proceeding along the general lines of consolidation and retrenchment indicated.

## DIVISION OF THE PHILIPPINES.

## I. GENERAL REMARKS.

Subsistence affairs in the Philippines have presented at all times complex and difficult problems, but the present period has been one of extreme difficulty to meet satisfactorily. New and shifting conditions have arisen at every step, and what is wisdom to-day becomes a futility to-morrow, so that it has been impossible to map out any definite plan or make a provident recommendation; but it is expected that a settled and satisfactory basis will soon be reached, and upon which intelligent action may be founded. The policy of concentration which has resulted in large reductions in military forces and posts, and by which troops are to be stationed at seacoast points and along the railroad, all make toward an early and satisfactory solution.

Col. Charles A. Woodruff, chief commissary of the Division of the Philippines, commenting on this unsettled state of affairs, says:

On July 1, 1901, there were 554 posts in this division; these have been constantly reduced until May 31, 1902, there were 250, and on June 30, 1902, there were about 200. This constant and at times rapid reduction of posts necessitated a great deal of extra work and care in order to reduce many stores to a proper amount and prevent an accumulation. Many of the posts that were abandoned were in almost inaccessible localities and most of the transportation available was necessary for the removal of the troops, and the stores brought from these abandoned posts to depots and other posts were often in poor condition and unfit for reissue or sale without a great deal of rehandling and the condemnation of large quantities. Then, too, the active operations, especially in the provinces of Batangas and Laguna and in the islands of Samar and Mindanao, necessitated the shipments of large quantities of stores to these points in order that at all points there should be an abundance of supplies for the troops operating in those districts.

Then, too, the constant movement of troops from these islands to the United States and from the United States to these islands, 28,591 having been returned to the United States during the year and 15,392 having been brought to these islands, and 16,128 troops were transported from Manila to interisland ports, and 17,534 brought from interisland ports to Manila, and other thousands from one interisland port to another without coming here; with the consequent changes of garrisons and the natural variations in the appetites and desires incident to such changes; also the abolition of the right to purchase by the employees of the insular government, which reduced the sales to civilians in this city (Manila) from \$15,335.10 in August, 1901, to \$3,277.60 in September, 1901, all combined to render the problem of supply a difficult one.

Maj. James N. Allison, chief commissary of the Department of North Philippines, is not less pointed and emphatic in the course of his interesting annual report regarding such a condition:

As long as this transition state exists little progress can be made toward uniformity, proper system, or economy in the administration of affairs; and things may only be done as they can be done, not as they should be.

## II. SOURCES OF SUPPLY.

The bulk of the ration articles, and many of those for sales to officers and enlisted men, were drawn from San Francisco, owing to its favorable location and market, which insured reasonable prices, and afforded a short route to the Philippines. New York was drawn upon for the bulk of articles intended for sales, while from Chicago, Kansas City, and Omaha, the three largest packing centers in point of production in the world, salt meats and meat products were procured. St. Louis supplied a limited number of articles which were produced there, or which that city could economically furnish.

Instructions have been given that whenever supplies can be procured at reasonable rates in Manila they are to be purchased in that market, which is now a point of supply for fresh beef, fresh mutton, potatoes, onions, rice, issue and granulated sugar, ice, butter, cheese, cigars, Australian milk, tansan water, stewards' stores for use on transports, and for exceptional articles.

### III. TRANSPORTATION, COLD STORAGE, ICE, FRESH MEAT, AND FRESH VEGETABLES.

The most vital questions which concern the Subsistence Department, and now engaging its attention, are adequate transportation facilities to insure speedy delivery of perishable and essential articles, cold storage, ice for issue and for the preservation of meat, butter, lard, and other delicate and perishable stores, and the supply of fresh meat and fresh vegetables, and their prompt and satisfactory distribution.

*Transportation.*—The question of transportation is the most difficult and important one which has to be dealt with just now, and this is particularly true with regard to the Department of South Philippines. While it is recognized that there are difficulties incident to the situation, the fact remains that lack of adequate and satisfactory transportation facilities is the cause of just and endless complaint, and brings criticism and odium on the Subsistence Department for failure in a matter over which it has no control but which so vitally concerns it. Troops in many places are wholly dependent upon the Subsistence Department for their food supply and they complain of being deprived of supplies not only absolutely essential to health, such as beef, fresh vegetables, and ice, but others required for their wants and comfort. Large losses are entailed by delays in shipments of perishable stores. The chief commissary of the division of the Philippines says:

The officer in charge of water transportation established several routes of supply that were satisfactory to the Subsistence Department, but many of these would scarcely be in working order before, owing to accident to some of the vessels or the fact that it was necessary to put some of the vessels out of commission for needed repairs, the schedule was broken; and this, with the further fact that the number of vessels with refrigerating capacity was small, has rendered this service unsatisfactory to this office.

It is earnestly recommended that two light-draft boats, with a refrigerating plant of about 75 tons refrigerating capacity, be provided for the Subsistence Department, to be used exclusively for carrying fresh meat, fresh vegetables, ice, and also the mail if it shall be deemed desirable. This transportation would permit of the speedy delivery of perishable articles of subsistence stores, which are very essential to the health and comfort of the troops, and would result in preventing enormous losses of stores, reduce labor and expense materially, and in the course of a few years the boats would almost save the Government what it costs to provide and operate them.

*Cold storage and ice.*—It is strongly urged that wherever permanent posts are built in the Philippines that cold storage be provided and ice-making plants constructed. I quote from the report of the chief commissary of the Division of the Philippines:

Cold storage is absolutely necessary to secure an abundant supply of beef, and is of great benefit in preserving vegetables, butter, lard, etc., and ice is almost a necessity for the comfort of the strong as well as the sick; and while a limited amount of ice is issued to the troops, officers and families should be able to obtain it at a reasonable rate. As it is now, many expend nearly or quite as much for ice for domestic use as the extra pay they receive for foreign service.

The chief commissary of the Department of North Philippines in his report says:

Under authority of the commissary-general ice in liberal quantities is shipped to all points supplied with beef, and has proved of great value in the preservation of this, as well as a luxury to the troops and a godsend to the sick in hospital.

During the fiscal year 11,253,980 pounds of ice have been issued to troops and used for preserving fresh meat in the butcher shops and during shipments. The average cost of ice was about one-half cent per pound.

*Fresh meat.*—There has at all times been an abundant supply of first-class refrigerated beef, which was procured in Australia at reasonable prices—averaging 6.68 cents per pound for beef and 5.50 cents per pound for mutton, increased by 2 cents per pound for delivery. The meat was brought by vessels of the Navy (which has rendered such efficient service in this respect) to Manila, where it was placed in cold storage. The prices paid with all expenses included have been very reasonable, and are in wide contrast with those paid for the British army in South Africa, where the cost of a ration of beef alone delivered to the British army in that section has equaled the cost of our entire ration of beef, flour, fresh and dried vegetables, fruit, coffee, sugar, etc., delivered in Manila. There were 8,574,972 pounds of beef and mutton supplied of a most excellent quality. It was necessary to procure this beef from Australia, as the ravages of rinderpest has almost totally destroyed the cattle, carabao, and swine in the archipelago. It is feared now that on account of the drought in Australia that the price of fresh meat will advance, and with this prospect in view steps have been taken to obtain a new market and the delivery of fresh meat by mercantile vessels.

While the procurement of an ample supply of fresh meat has up to the present time presented no difficult features, the matter of its distribution to distant and isolated stations is a serious problem. It is shipped from Manila by transport, coast lines, launch, and rail; and the Quartermaster's Department has placed a number of ice chests with a capacity of several thousand pounds of beef and ice on transports, commercial liners, and steam launches. Large quantities of fresh beef have been shipped by this method, but it is expensive, and is very unsatisfactory unless delivery can be made in a few days. To interior points meat is shipped by casco, wagon, bull cart, and pack mule. The value of fresh beef as an article of diet is inestimable and has at all times given this Department the greatest concern, and the problem can only be fully solved when the transportation problem is solved.

*Fresh vegetables.*—Fresh vegetables, like fresh meat, present much difficulty in handling. The islands are capable of producing nearly all kinds of vegetables, but owing to the unfavorable conditions which have existed for several years production has been at a minimum. The supply for the Philippines has been procured in the United States, Australia, New Zealand, China, and India, and the vegetables have cost 2.7375 cents per pound, though the contract for the fiscal year ending June 30, 1903, is at 2.6 cents per pound. In this connection the chief commissary of the Division of the Philippines remarks:

The supply has generally been ample and the qualities good and, except in isolated cases, the losses small. Thirteen million seven hundred and fifty-one thousand and one hundred and sixteen pounds of potatoes and 2,693,809 pounds of onions have been supplied to troops in this division during the year ending June 30, 1902. Vege-



tables are received from the contractor, picked over, assorted by hand (the contractor stands all loss due to sorting), recrated, and shipped to their destination, and, while losses as high as 50 per cent and even 90 per cent have occurred, the average loss on the total vegetables handled has been about 5 per cent. The large losses mentioned have been generally due to changes of destinations of vessels after loading or to unforeseen delays in delivery.

When it was impracticable to send fresh vegetables to distant and inaccessible points, desiccated vegetables were furnished as a substitute, but they have not in many instances given satisfaction. When neither fresh nor desiccated vegetables could be furnished troops, commutation of the fresh vegetable ration has been authorized.

#### IV. THE RATION AND SALES ARTICLES.

The utmost care has been exercised to supply the best quality of stores for issues and sales, and the chief commissary of the Division of the Philippines says on the subject:

The ration has given excellent satisfaction to the troops. The native scouts, etc., prefer the components of our ration to their ordinary rice and fish diet, which was forced upon them by their poverty, and officers have reported that when hard work or marching was required from the natives, a diet containing meat was a necessity in order to secure the best results. The troops still continue to prefer the army bean rather than rice for the principal portion of their dried vegetable ration; bacon and beef are desired here as much as they are in the United States, and sugar is used to a much greater extent, and this office has been informed by medical officers that the good physical condition of the troops in these islands has been due largely to the abundance and the good quality of the subsistence stores.

By authority of the Secretary of War, and in accordance with the provisions of section 1144 of the Revised Statutes of the United States and paragraph 1351 of the Army Regulations, the following list of stores to be kept on hand for sales to officers and enlisted men in the Philippines was established and published in Circular No. 6, Office of the Commissary-General, 1901:

Articles.	Varieties.	Unit of weight or measure.	Kinds or sizes of packages preferred.
All articles which are components of the ration, and the following:			
Apples	Canned	Can	24-pound cans.
Asparagus	do	do	2-pound cans.
Bacon, breakfast, dry-salt cure.	Sliced	do	1-pound cans.
Basins, hand	Granite	Number	
Beans	Stringless	Can	2-pound cans.
Beef	Chipped	do	1-pound cans.
Beef extract		Jar	4-ounce jars.
Blacking, shoe	American	Box	4-ounce boxes.
Blanco	{Khaki White	do	8-ounce boxes.
Bluing	Powdered	do	2-ounce boxes.
Brooms, whisk	Medium size	Number	
Brushes, blacking	No. 2	do	
Brushes, hair	Medium	do	
Brushes	Nail	do	
Do	Shaving	do	
Do	Tooth, assorted	do	
Butter		Pound	
Buttons, bone	L. and S.	Number	
Buttons, collar	No hinge	do	
Candy	Three varieties	Pound	
Can openers	Plain	Number	
Chamois skins	2 to 24 feet square	do	
Cheese	American	Pound	
	Edam	Number	
Cherries	Canned	Can	3-pound cans.
Chocolate	Plain	Pound	1-pound packages.
	Vanilla	do	
Cigars	Three brands	Number	Boxes; ½ boxes.

Articles.	Varieties.	Unit of weight or measure.	Kinds or sizes of packages preferred.
Cinnamon	Ground	Pound	4-pound tins.
Clothespins		Number	5-gross boxes.
Cloves	Ground	Pound	4-pound tins.
Cocoa	Breakfast	Tin	4-pound tins.
Coffee, extra	Java	Pound	Commercial packages.
Coffee, roasted	Mocha	do	Do.
Combs	Fine, rubber	Number	
Do	Pocket, rubber	do	
Do	Rubber, medium	do	
Corn	Green	Can	2-pound cans.
Crackers	Ginger, soda	Pound	5-pound tins.
Currants		Tin	2-pound tins.
Electro silicon		Box	8-ounce boxes.
Envelopes, letter	Best	Number	Boxes of 250.
Envelopes, note	do	do	Boxes of 125.
Flavoring extract	Lemon	Bottle	2-ounce bottles.
	Vanilla	do	
Gelatin		Packet	2-ounce packets
Ginger ale	Imported	Bottle	Pint bottles.
	Deviled	Can	4-pound cans.
Ham	Dry-salt cure	Pound	Tierces.
Handkerchief, linen	Medium size and quality	Number	
Handkerchief, silk	White	do	
	Black	Bottle	3-ounce bottles.
Ink	Indelible	do	2-ounce bottles.
Jam	Assorted blackberry and strawberry.	Can	2-pound cans.
Jelly	Currant	do	Do.
	do	do	5-pound cans.
Lard	Choicest	Pail	5-pound pails.
Listerine		Bottle	14-ounce bottles.
Lobster	Canned	Can	1-pound cans.
Lye	Concentrated	do	Do.
Macaroni		Pound	1-pound packages.
Matches	Safety	Box	60's.
	Condensed "Eagle"		
Milk	Evaporated "Highland Cream."	Can	1-pound cans.
Do	Australian, condensed	Gallon or can.	
Mushrooms	Canned	Can	4 cans.
Mustard	French	Bottle	8-ounce bottles.
	Ground	Pound	4-pound tins.
Needles	Nos. 3 to 9	Papers	
Nutmegs	Whole, 65s to 70s	Pound	
Oatmeal	Rolled, compressed	do	2-pound tins.
Oil	Olive	Bottle	Quart bottles.
Olives		do	Pint bottles.
Oysters	Canned	Can	2-pound cans.
Paper, letter	Best	Quire	5-quire packages.
Paper, note	do	do	Do.
Paper, toilet	Flat	Package	
Peaches	Canned	Can	3-pound cans.
Pears	do	do	Do.
Peas, green	American, 1 variety	do	2-pound cans.
Pencils, lead	American, black, No. 2	Number	12 to carton.
Penholders	Rubber	do	
Pens	Coarse, fine, stub	Gross	
Pepper, red	Cayenne	Pound	2-ounce bottles.
Pickles	Chowchow, gherkins, mixed	Jar	Pint jars.
Pineapples	Canned	Can	2-pound cans.
Pins		Pyramid	12 to carton.
Pipes, brierwood	Nos. 1 and 4	Number	
Plum pudding		Can	2-pound cans.
Polish, shoe	Whittemore's black	Box or bottle.	
	Whittemore's russet		
Preserves	Damson, raspberry, and strawberry.	Can	Do.
	Boxed	Pound	Boxes.
Raisins		Number	
Razors		do	
Razor strops	Reppenhagen	Bottle	24-pound bottles.
Salt, table		do	4 boxes.
Sardines	Boxes	Bottle	Pint bottle.
	Tomato catsup	do	4-pint bottles.
Sauce	Worcestershire	Pound	10-gallon kegs.
Sauerkraut	Vienna	Can	2-pound cans.
Sausage	Linen and porpoise	Pair	
Shoestrings	Cuticura, glycerin (Pear's)	Cake	
	Lettuce		
	Oatmeal		
Soap	Shaving	Stick	
	White floating	Cake	
	Sapallo		
Soup	Beef, chicken, clam chowder, mock turtle, oxtail.	Can	Quart cans.
Sponges	Large	Number	

Articles.	Varieties.	Unit of weight or measure.	Kinds or sizes of packages preferred.
Starch.....	{Corn.....	} Pound.....	1 pound packages.
	{Laundry.....		
	{Cut loaf, hard.....		
Sugar, white.....	Granulated, fine.....	do.....	Barrels; $\frac{1}{2}$ barrels; 50-pound boxes.
	Powdered.....	do.....	Barrels; $\frac{1}{2}$ barrels; 100-pound double sacks. $\frac{1}{2}$ barrels; 50-pound boxes.
Tablets, letter and note.....	Best.....	Number.....	
Talcum powder.....	Small tins.....	do.....	
Tansan water.....		Bottle.....	
Tapioca.....	Granulated.....	Pound.....	1-pound packages.
	{Cotton (black, white, khaki). Linen (black, white)..... Silk (black).....	} Spool.	
Thread.....	{Plug (Climax).....		
	{Smoking (Durham).....		
Tobacco.....	Colgate's.....	Pound.....	
Toilet water.....	Beef.....	Bottle.....	Pint bottles.
Tongue.....		Can.....	2-pound cans.
Tooth powder.....	No. 2 huck. and cotton bath.	Box, bottle, tube.	
	Unbleached.....	Number.	
Towels.....		Yard.	
Witch-hazel.....		Bottle.....	Pint bottles.
Wheat, rolled.....		Pound.....	2-pound tins.

At one time as many as 300 different articles of stores for sales was authorized and supplied, but the number is now limited to about 150. During the year the sales throughout the archipelago reached the grand total of \$2,022,122.09.

#### V. GENERAL DEPOT OF SUPPLY.

The general depot of supply is at Manila and under the charge of Maj. Barrington K. West.

Some idea of the magnitude of its transactions can be realized when it is considered that all subsistence stores and property received and distributed in the Division of the Philippines are handled by this depot. It has received and supplied as high as 300 different articles during the year; and the stores shipped, issued, and sold, for the use of officers, enlisted men, and the sick, amounted to a total money value of \$5,125,070.58, and special steward stores amounted to \$20,835.78. The monthly average of stores received, shipped, and handled was about 16,000,000 pounds, and a total of 187,528,372 pounds, net, was handled for the year.

A loss of only \$627.35 was incurred in unloading \$1,906,902.25 worth of cargo, transporting of same 2 miles in cascoes, and placing the supplies in storehouses, which is most creditable to the depot commissary, the officer in charge of water transportation, and those connected with their offices.

One of the pressing needs of the Subsistence Department in connection with the shipment from the depot of stores of a perishable nature, such as fresh meat, fresh vegetables, and ice, is two light-draft steamers with ice plant, and arranged especially for the delivery of these articles. While the greatest care at the depot is observed in handling such stores, yet owing to the lack of speedy transportation large losses are sustained on these very perishable articles, due to deterioration en route on commercial vessels, which are delayed or diverted from their courses long enough to cause the loss of all the vegetables and possibly the meat, and at the same time the troops are deprived of these highly appreciated articles so essential to their health and comfort.

Tremendous responsibilities have devolved upon Major West, which he has been equal to in every way. He has carefully guarded the public interests, systematized the work, reduced expenses, and labored incessantly. Col. J. P. Sanger, inspector-general of the Philippines, in his report of an inspection of the depot, stated:

Major West is an excellent officer in every respect and a model commissary, and the condition of the depot reflects great credit on him and his assistants.

#### VI. SALES DEPOT AT MANILA.

This depot is in charge of Capt. Douglas Settle, and practically furnished the food supply of the Army, Navy, Marine Corps, and civilians authorized to purchase, stationed in and about Manila. On an average about 5,000 persons were supplied from this depot.

Stores to the value of \$480,609.31 were handled at an expense of 5½ per cent, which includes salaries, rent, ice, forage, etc.; and losses from condemnation on this total was only 1¼ per cent, which is a most creditable showing when it is considered that business houses usually count upon 10 per cent and more for expenses in the transaction of business.

There was in addition to all other items stores valued at \$185,443.20 transferred to the Navy from the depot, besides large quantities supplied vessels at Cebu, Candon, Iloilo, Zamboanga, Tacloban, and other points.

#### VII. SUPPLY OF CONCENTRATION CAMPS.

Among other factors which have helped to swell the vast volume of labor performed by the Subsistence Department has been the supply of concentration camps.

The chief commissary of the Division of the Philippines has the following remarks touching the supply of enormous quantities of rice to these concentration camps, which involved a large amount of gratuitous labor by the Subsistence Department:

When it was decided to concentrate the inhabitants of Batangas and Laguna in camps, where they could be protected from the insurgents, General Bell made arrangements with this office to supply these people through officers, designated by himself, an abundance of food to prevent any suffering. The method was to collect from the wealthy classes a percentage more than the rice cost, yet less than they have been in the habit of paying for it; the middle classes were supplied at cost and the poor classes were supplied from a surplus resulting from sales to others, and these poor people, if able to work, were placed at road building and other public improvements, and paid with this surplus rice. Under this arrangement 14,000,000 pounds of rice have been supplied to the natives of these two provinces, besides a quantity of sugar and salt. The natives have received the rice for less than they would have had to pay in times of profound peace, and the Subsistence Department has not been called upon to reduce its appropriation one dollar. I inspected several of the concentration camps where there was peace, plenty, comfort, and apparently happiness, and am satisfied that while they were originally intended for protection to the natives and assistance to the military authorities, they really became to the natives of the country camps in instruction and sanitation, and the poorer people were better off in every way than ever before.

#### VIII. LOSSES.

A variety of causes led to large losses during the year. These losses resulted in the main from conditions which could not be foreseen or provided against. Among the prolific sources was a lack of adequate and proper transportation facilities; quarantine regulations which were established on account of Asiatic cholera, and necessitated perishable articles like fresh vegetables remaining in quarantine for at least five days; the lack of proper cold-storage facilities, fire, theft, and the condemnation of large quantities of old stores accumulated throughout

the islands, which surplus was, as the chief commissary of the Division of the Philippines states:

Due to the reduction in the number of troops, reshipment here of stores intended for China, to military necessities occasioned by the rapid concentration of troops for active operations in the field, then their withdrawal or movement to other points, and the difficulty, owing to lack of mail facilities and inexperience of many post commissaries, of getting full and prompt reports; but as far as practicable these stores have been issued or sold. The fact that some of these have been on hand for a long time, and, in some cases, shipped and reshipped, has been the cause of many condemnations.

The total amount of losses for the entire archipelago during the period was:

Damaged .....	\$277, 156. 90
Shortages .....	33, 160. 92
Stolen .....	1, 876. 61
Lost in transit.....	12, 873. 82
Lost by fire .....	29, 146. 16
Grand total .....	354, 214. 41

And Colonel Woodruff in commenting on this still further remarks:

This grand total of losses pertains not only to the \$5,125,070.58 shipped, but to \$1,548,765.05 value of stores in depot June 30, 1902, and to \$2,000,000 approximate value of stores on hand at the various posts June 30, 1901, or to stores of a total value of \$8,673,835.63, making the total losses from all causes about 4 per cent, not taking into consideration the amounts received from sale of damaged stores, for shortages when responsibility was fixed, and for collection from contractors for those lost in transit, the exact amounts of which are not known at this office.

#### IX. LIST OF OFFICERS.

The list of officers named below were on duty in the subsistence department in the Division of the Philippines at the close of the fiscal year:

Col. C. A. Woodruff, A. C. G., United States Army, chief commissary, Division of the Philippines.

Lieut. Col. Henry B. Osgood, D. C. G., United States Army, chief commissary, Department of South Philippines.

Maj. James N. Allison, commissary, United States Army, chief commissary, Department of North Philippines.

Maj. George B. Davis, commissary, United States Army, chief commissary, Sixth Separate Brigade.

Maj. Barrington K. West, commissary, United States Army, depot commissary, Manila.

Capt. William H. Hart, commissary, United States Army, assistant to the depot commissary, Manila.

Capt. Alexander M. Davis, commissary, United States Army, chief commissary, Seventh Separate Brigade.

Capt. Douglas Settle, United States Infantry, commissary, sales commissary, Manila.

Capt. Harry E. Wilkins, commissary, United States Army, assistant to the chief commissary, Division of the Philippines.

Capt. Arthur M. Edwards, commissary, United States Army, assistant to the depot commissary, Manila.

Capt. James A. Logan, jr., commissary, United States Army, assistant to the depot commissary, Manila.

Capt. Julius N. Kilian, commissary, United States Army, chief commissary, Fifth Separate Brigade.

Capt. Salmon F. Dutton, commissary, United States Army, chief commissary, First Separate Brigade.

The following-named officers of the Subsistence Department were on duty in the Division of the Philippines during the fiscal year ending June 30, 1902, but were relieved prior to that date:

Maj. A. D. Niskern, commissary, United States Army, chief commissary, Department of Southern Luzon, relieved from duty in the Division of the Philippines, October 21, 1901.

Maj. R. L. Bullard, commissary, United States Army, chief commissary, Department of Northern Luzon, granted sick leave of absence with permission to visit the United States, August 23, 1901.

Capt. Charles P. Stivers, commissary, United States Army, chief commissary, Department of the Visayas—chief commissary, Fifth Separate Brigade—relieved from duty in the Division of the Philippines, May 15, 1902.

Capt. H. G. Cole, commissary, United States Army, depot commissary, Department of Southern Luzon, assistant to the depot commissary, Manila, relieved from duty in the Division of the Philippines, November 2, 1901.

Capt. F. H. Lawton, commissary, U. S. Army, sales commissary, Manila, P. I.; granted leave of absence with permission to visit the United States, September 25, 1901.

Capt. Thomas Franklin, commissary, U. S. Army, assistant to the depot commissary, Manila; relieved from duty in the Division of the Philippines, November 2, 1901.

Capt. T. B. Hacker, commissary, U. S. Army, chief commissary, Department of Mindanao and Jolo; depot commissary, Zamboanga, Mindanao; relieved from duty in the Division of the Philippines, October 21, 1901.

Capt. S. B. Bootes, commissary, U. S. Army, assistant to the chief commissary, Department of Northern Luzon; relieved from duty in the Division of the Philippines, August 22, 1901.

Capt. F. H. Pomroy, commissary, U. S. Army, depot commissary, Department of Northern Luzon; chief commissary, Fourth District of Northern Luzon; chief commissary, First Separate Brigade; relieved from duty in the Division of the Philippines, May 8, 1902.

Capt. William Elliott, commissary, U. S. Army; assistant to the depot commissary, Manila; relieved from duty in the Division of the Philippines, May 15, 1902.

All the officers mentioned in the foregoing lists have rendered efficient and meritorious service, and Col. Charles A. Woodruff, the chief commissary of the division, deserves special mention. His administration has been characterized by rare judgment and energy, zeal for the public service, and indefatigable labor. Whatever he has done has been admirably conceived and successfully carried out, and he has added to his already enviable record by his splendid service in the Philippines.

#### X. CLERICAL FORCE.

The chief commissary of the Division of the Philippines in his annual report says of the clerical force in the Philippines:

I desire to invite attention to the clerks in the Subsistence Department. But few of them are under the civil service rules, but I think every deserving one should be so placed. They have worked early and late, and many of them have loyally remained with the department when they could have secured more lucrative positions elsewhere. As conditions are, there is no incentive for them to remain; if ill, they must be discharged, and it is thought it would be just to give them an opportunity to enter the civil service list and then be interchanged with clerks of the department now in the United States.

The chief commissary of the Department of North Philippines says on the same subject:

Provision should be made toward placing the clerks in the Philippines on a basis at least approaching that of employees of the same character in the States. These men are doing valuable and necessary work, and as a rule are intelligent, energetic, able, faithful, and hard working. Most of them are discharged soldiers of excellent character and record of service. They are held as "temporary" employees, and under existing conditions there appears to be no way in which, whatever their merit, they can gain access to the civil service, while many of them are thoroughly competent and experienced clerks.

The depot commissary at Manila also states in the same connection:

There are a number of temporary clerks in this office whom I would specially commend to your favorable consideration. These men have stood by us during the heat and burden of the day; they are men of high character, and are experts in their

lines of work. Most of them have served as soldiers, either Volunteer or Regular, and they now desire to enter the civil service, but there seems to be no way of thus rewarding these faithful public servants.

#### XI. COMMISSARY SERGEANTS.

With reference to the commissary sergeants serving in the Philippines, the chief commissary of the division makes the following commendatory mention of them:

We have in this division 61 commissary sergeants, and their faithful and intelligent services have been of inestimable value to the Government in handling, caring, and accounting for stores.

#### NEW SUBSISTENCE MANUAL.

So many changes have occurred since the publication of the first Subsistence Manual, which appeared in the year 1896, that a new edition was prepared and received the approval of the Secretary of War on April 7, 1902. If nothing else were required to emphasize the absolute need of such a book, the difficulties experienced during the Spanish war from lack of such a manual were amply sufficient.

The principal idea in its preparation was to have it embody in a condensed form all essential regulations of the Subsistence Department, thereby affording a ready reference and guide for the use of officers doing subsistence duty, without necessitating a search through an undigested mass of regulations, orders, circulars, decisions, and rulings scattered through a period of years. Such a slow, tedious, and laborious plan renders a diligent dispatch of business impracticable.

#### FILIPINO RATION AND COMMUTATION THEREOF.

By virtue of General Order No. 24, Adjutant-General's Office, March 12, 1902, all the provisions of Article LXXIX of the Regulations of 1901, relating to the subsistence of enlisted men of the Army were extended to the enlisted men of the Philippine Scouts, except that the ration for them for garrison or field service (to be known as the Filipino ration) and commutation thereof are as indicated below.

The kinds and quantities of articles of the Filipino ration and the quantities computed for 100 rations are as follows:

Articles.	Quantities per ration.		Quantities per 100 rations.	
	Ounces.	Gills.	Pounds.	Ounces. Quarts.
<b>Meat components:</b>				
Fresh beef.....	12		75	
Or bacon.....	6		37½	
Or canned roast beef.....	8		50	
Or canned corned beef.....	8		50	
Or canned salmon.....	12		75	
Or codfish, dried.....	8		50	
Or fresh fish.....	12		75	
<b>Bread components:</b>				
Flour.....	16		100	
Or hard bread.....	16		100	
Or rice.....	28		175	
<b>Vegetable components:</b>				
Potatoes.....	4		25	
Or onions.....	2		12½	
<b>Coffee and sugar components:</b>				
Coffee.....	¾		2½	
Sugar.....	1		6½	
<b>Seasoning components:</b>				
Vinegar.....		½		1
Salt.....	½		4	
Pepper, black.....	½			2
<b>Soap and candle components:</b>				
Soap.....	½		2	
Candles.....	½			12

## COMMUTATION OF RATIONS.

Commutation of rations to Philippine scouts, under clauses 1, 3, 4, and 5 of paragraph 1410 of the Regulations, will be at the following rates per day: Under clause 1, 25 cents; under clause 3, 50 cents; under clause 4, 75 cents; under each of the subheads of clause 5, 75 cents. No commutation will be allowed under clause 2.

## . EMERGENCY RATION.

The emergency ration has been very generally used in the Philippines, though it has not proved wholly a success, but experiments are still in progress, and it is expected that in due time a ration of this character will be evolved which will prove satisfactory in every respect.

## ISSUE BACON.

After investigation and exhaustive experiments for several years the production of this article under specifications prepared by this Department has reached as nearly as possible to perfection. Much of the credit for this successful outcome is due to the intelligent and laborious effort of Maj. Charles R. Krauthoff, purchasing commissary at Chicago, Ill.

## FRESH-BEEF HASH.

Experiments are being conducted with the aim of producing a satisfactory fresh-beef hash, consisting of fresh beef, potatoes, and onions, to be used as a substitutive issue for all other components of the fresh meat and vegetable ration when troops are operating in the field and war conditions exist.

## DETAILS FROM LINE OF THE ARMY UNDER ACT FEBRUARY 2, 1901.

It is recommended that all details to the Subsistence Department under the act of February 2, 1901, be from first lieutenants of the line to the grade of captain, and while performing such duty the officers so detailed to receive the pay and emoluments of a captain.

## SUBSISTENCE FUNDS HELD IN HAND FOR READY DISBURSEMENT.

I again submit to the honorable the Secretary of War, and urgently request his endeavors to have embodied into law, a bill to give authority to all officers intrusted with the disbursement of subsistence funds to hold restricted amounts of such funds in their personal possession. The exigencies of the public service require an open disregard of the restrictions of the existing law in cities where the treasurer or an assistant treasurer is located.

A bill which was intended to meet the necessities of the case passed the Senate March 24, 1900 (S. 2870), a copy of which is appended:

## AN ACT concerning disbursing officers of the Subsistence Department of the Army.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That officers intrusted with the disbursement of funds for the subsistence of the Army are hereby authorized to keep, at their own risk, in their personal possession for disbursement, such restricted amounts of subsistence funds for facilitating payments of small amounts to public creditors as shall from time to time be authorized by the Secretary of War.



AUTHORITY FOR DISPOSITION OF SUBSISTENCE STORES NO LONGER  
NEEDED.

In my annual report of last year I had the honor to submit the following for the consideration of the honorable the Secretary of War:

I have the honor to again urge upon the Secretary of War the need of legislation authorizing the sale at public auction of subsistence stores in good condition which may at any time accumulate in excess at any depot or point of supply and which can not advantageously or economically be transported to other points for issue or sale to troops. The draft of a bill to accomplish the object desired heretofore submitted by this office is as follows:

*"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War may cause to be sold at public sale, under regulations to be prescribed by him, such subsistence stores in good condition intended for issue or for sales to officers and enlisted men as may from time to time accumulate at any subsistence depot, military post, or in the field, in excess of amounts required for use and which can not, with economy and advantage, be shipped to other subsistence depots, posts, or places for military use, the proceeds to be immediately available for general disbursement, under the appropriation for subsistence of the Army current at the time of sale, for any of the objects contemplated by that appropriation."*

As the proceeds of all sales of subsistence supplies are, by the act of March 3, 1875 (18 Stat. L., 410), now "exempt from being covered into the Treasury," and are made "immediately available for the purchase of fresh supplies," the above proposed legislation is in exact accord with existing law as to disposition of proceeds of authorized sales of subsistence supplies. There is no law, however, authorizing the sale to the public of subsistence supplies in bulk which are in good condition, the only legislation bearing on the subject of sales of military supplies (sec. 1236, Rev. Stat.) being general in its nature and providing only for the sale of stores which, upon proper inspection or survey, appear to be "damaged" or "unsuitable for the public service." As all public sales of subsistence supplies in good condition in bulk now taking place are being made under the guise of the stores being "unsuitable," and such an appropriation of the wording of section 1236 to cover transactions which would else be without even the color of authority of law is strained and unsatisfactory, I earnestly recommend that the above draft of law be pressed upon the attention of Congress.

As illustrating the wastefulness which is consequent upon the absence of a law authorizing the public sale of subsistence stores in good condition which in the vicissitudes of service have been left as surplus at distribution points in spite of all reasonable foresight, it may be stated that, in order to avoid total loss to the Government, valuable stores which had been purchased for sales to officers and enlisted men under section 1144, Revised Statutes, have been issued to enlisted men in place of equal weights of the authorized articles of the ration. A law authorizing the public sale of such stores would have saved the necessity of resorting to such extravagant issues in order to avoid a total loss. The same conditions exist in all sections where rapid removals of troops take place, or where throughout extensive regions troops are withdrawn or discharged.

ARMY BAKERS.

I again reiterate the recommendation that has been made in seventeen annual reports by Commissaries-General since 1877 for the enlistment of bakers in the service.

TRAINING SCHOOL FOR ARMY COOKS.

I also renew my recommendation of last year for the establishment of one or more schools for the training of cooks and bakers for the service. The Medical Department has established a school for teaching the art of cooking to the Hospital Corps, and was given an appropriation in the army appropriation act for the purpose. A competent knowledge of the art of cooking is as necessary for those who cook for well men as for those who cook for the sick. It is hoped that the

Secretary of War will urge the Military Committee of the House to favorably consider the above proposition and request that committee to recommend to the Appropriations Committee the insertion of an item in the army appropriation bill authorizing and appropriating for the training schools proposed. An appropriation of \$25,000 would be sufficient for preliminary preparation and equipment.

## CLERICAL FORCE, OFFICE OF THE COMMISSARY-GENERAL.

Under the provisions of the act of April 28, 1902, clerks and other employees on the temporary roll were transferred to the classified service, and the regular and temporary clerical forces are now merged.

There is no employee in this office below a fair standard of efficiency, or permanently incapacitated for the discharge of duty. They have all performed their duties diligently and faithfully, many having worked beyond office hours in order to bring their work up to date and keep it up. While no extra compensation can be allowed by executive authority for this extra work, it is but justice to deserving employees to give this praiseworthy conduct and spirit mention here.

## ROSTER OF OFFICERS OF THE SUBSISTENCE DEPARTMENT.

The following list shows the officers of the Subsistence Department and their duties on July 1, 1902:

Name and rank.	Duty and station.	Assigned to present station.
<b>COMMISSARY-GENERAL.</b>		
<i>With rank of brigadier-general.</i>		
John F. Weston .....	Commissary-general .....	Dec. 13, 1900
<b>ASSISTANT COMMISSARIES-GENERAL.</b>		
<i>With rank of colonel.</i>		
Charles A. Woodruff .....	Chief commissary, Division of the Philippines, Manila, P. I. Under orders to return to the United States, per S. O., 106, Headquarters Army, May 5, 1902.	July 17, 1900
Henry G. Sharpe .....	En route to Manila, P. I., for duty as Chief Commissary, Division of the Philippines, per S. O., 106, Headquarters Army, May 5, 1902.	
Frank E. Nye .....	Chief commissary, Department of the Columbia, and purchasing commissary, Vancouver Barracks, Wash. In charge of matters connected with the Subsistence Department on the transports sailing from Portland or Puget Sound ports.	Aug. 19, 1901 Aug. 19, 1901
<b>DEPUTY COMMISSARIES-GENERAL.</b>		
<i>With rank of lieutenant-colonel.</i>		
William L. Alexander .....	Assistant to the Commissary-General, Washington, D. C.	June 13, 1902
Henry B. Osgood .....	Chief commissary, Department of South Philippines, Cebu, Philippine Islands.	Dec. 16, 1901
Edward E. Dravo .....	Chief commissary, Department of the East, Governors Island, N. Y.	Oct. 17, 1900
Ablet L. Smith .....	Purchasing commissary, St. Louis, Mo .....	Sept. 17, 1901
<b>COMMISSARIES.</b>		
<i>With rank of major.</i>		
Tasker H. Bliss .....	Assigned to station in Washington, D. C., until further orders, per S. O., 123, Headquarters Army, May 31, 1902.	
James N. Allison .....	Chief commissary, Department of North Philippines, Manila, Philippine Islands.	Dec. 1, 1901

Name and rank.	Duty and station.	Assigned to present station.
COMMISSARIES—continued.		
<i>With rank of major—Cont'd.</i>		
William H. Baldwin.....	Purchasing commissary, San Francisco, Cal ..... Subsistence superintendent, Army transport service, par. 5, A. T. R. Under orders for duty as chief commissary, Department of California, per S. O. 143, Headquarters Army, June 18, 1902.	Jan. 22, 1897
David L. Brainard.....	Purchasing commissary, New York, N. Y. .... Granted leave of absence for one month and eleven days, per S. O. 129, Headquarters Army, June 2, 1902. On leave from June 24, 1902.	Sept. 1, 1900
George B. Davis.....	Chief commissary, Sixth Separate Brigade, and depot commissary, Tacloban, Philippine Islands. Under orders to return to the United States, per S. O. 143, Headquarters Army, June 18, 1902.	Nov. 28, 1901
Barrington K. West.....	Depot commissary, Manila, Philippine Islands.....	Mar. 7, 1901
Albert D. Niskern.....	Chief commissary, Department of the Missouri, and purchasing commissary, Omaha, Nebr. Temporarily chief commissary, Department of the Lakes, Chicago, Ill. Granted leave of absence for 1 month, to take effect about June 1, 1902, with permission to apply for an extension of 1 month, per S. O., 105, Headquarters Army, May 3, 1902. Leave extended 1 month per S. O., 143, Headquarters Army, June 18, 1902. On leave from May 30, 1902.	Dec. 11, 1901 Jan. 31, 1902
Robert L. Bullard.....	Granted leave of absence for 3 months on surgeon's certificate of disability, with permission to visit the United States, per S. O., 224, Headquarters Division of the Philippines, Aug. 23, 1901. Leave extended 3 months on surgeon's certificate of disability, per S. O., 22, Headquarters Army, Jan. 27, 1902; leave further extended 1 month on surgeon's certificate of disability, per S. O., 94, Headquarters Army, Apr. 21, 1902; leave further extended 1 month on surgeon's certificate of disability, per S. O., 106, Headquarters Army, May 3, 1902. On leave since Oct. 2, 1901. En route to Manila, P. I.; sailed June 16, 1902.	
Charles R. Krauthoff.....	Purchasing commissary, Chicago, Ill. .... Acting chief commissary, Department of the Lakes, during the absence of Major Niskern, on leave.	Aug. 28, 1901 May 30, 1902
<i>With rank of captain.</i>		
William H. Bean.....	Purchasing commissary, Kansas City, Mo. .... Granted leave of absence for 1 month, per S. O., 144, Headquarters Army, June 19, 1902. On leave from June 25, 1902.	Oct. 29, 1901
William H. Hart.....	Assistant to depot commissary, Manila, P. I. ....	Oct. 31, 1901
Alexander M. Davis.....	Chief commissary, Seventh Separate Brigade, Zamboanga, P. I. ....	Dec. 1, 1901
<i>Douglas Settle, U. S. Infantry..</i>	Depot commissary, Zamboanga, P. I. ....	Nov. 1, 1901
Hugh J. Gallagher.....	Sales commissary, Manila, Philippine Islands.....	Oct. 1, 1901
George W. Ruthers.....	Assistant to the Commissary-General, Washington, D. C. Chief commissary, Department of California, San Francisco, Cal. Under orders for duty in the Philippine Islands; to proceed on transport sailing about July 15, 1902, per S. O. 143, Headquarters Army, June 18, 1902.	Sept. 9, 1901 Nov. 7, 1901
Harry E. Wilkins.....	Assistant to chief commissary, Division of the Philippines, Manila, Philippine Islands.	Apr. 20, 1902
William L. Geary.....	Assistant to purchasing commissary, San Francisco, Cal. Commissary of camps, Presidio of San Francisco, Cal. ....	May 27, 1901 Aug. 31, 1901
Charles P. Stivers.....	Under orders to return to the United States, per S. O. 50, Headquarters Army, March 11, 1902. Awaiting transportation at Manila, Philippine Islands, June 14, 1902.	
Henry G. Cole.....	Assistant to purchasing commissary, New York, N. Y. .... Acting purchasing commissary, New York, N. Y., during absence of Major Brainard, on leave.	June 24, 1902
Arthur M. Edwards.....	Assistant to depot commissary, Manila, Philippine Islands.	Oct. 21, 1901
Jacob E. Bloom.....	Assistant to purchasing commissary, Chicago, Ill. ....	June 6, 1902
Frank H. Lawton.....	Assistant to chief commissary, Department of the East, Governors Island, N. Y.	June 30, 1902
<i>Thomas W. Darrah, U. S. Infantry.</i>	Chief commissary, Department of Dakota, and purchasing commissary, St. Paul, Minn.	Nov. 8, 1901
Thomas Franklin.....	Treasurer U. S. Military Academy and quartermaster and commissary of cadets, West Point, N. Y.	Jan. 8, 1902
Frank A. Cook.....	Chief commissary, Department of the Colorado, and purchasing commissary, Denver, Colo.	Nov. 1, 1901
William R. Grove.....	Assistant to chief commissary, Department of the Missouri, and purchasing commissary, Omaha, Nebr. Acting purchasing commissary, Kansas City, Mo., during the absence of Captain Bean, on leave.	Jan. 24, 1902 June 28, 1902

Name and rank.	Duty and station.	Assigned to present station.
<b>COMMISSARIES—continued.</b>		
<i>With rank of captain—Cont'd.</i>		
Theodore B. Hacker .....	Post commissary, Fort Leavenworth, Kans .....	Feb. 6, 1902
Morton J. Henry .....	Purchasing commissary, Boston, Mass .....	Mar. 14, 1902
Samuel B. Bootes .....	Chief commissary, Department of Texas, and purchasing commissary, San Antonio, Tex.	Mar. 17, 1902
Frederic H. Pomroy .....	Under orders to return to the United States, per S. O. 59, Headquarters Army, Mar. 11, 1902. Awaiting transportation at Manila, Philippine Islands, June 14, 1902.	
David B. Case .....	Assistant to the purchasing commissary, New York, N. Y.	Mar. 24, 1902
William Elliott .....	Under orders to proceed to St. Louis, Mo., for duty as assistant to the purchasing commissary, per S. O. 147, Headquarters Army, June 23, 1902.	
James A. Logan, jr. ....	Assistant to depot commissary, Manila, Philippine Islands.	May 17, 1902
Julius N. Killian .....	On duty in the Division of the Philippines. Arrived at Manila, P. I., May 12, 1902.	
Salmon F. Dutton .....	On duty in the Division of the Philippines. Arrived at Manila, P. I., May 1, 1902.	
Michael S. Murray .....	Assistant to the Commissary-General, Washington, D. C.	Apr. 17, 1901

NOTE.—The names of officers detailed from the line under section 26, act of February 2, 1901, are printed in italics.

Respectfully submitted.

J. F. WESTON,  
*Commissary-General.*

The SECRETARY OF WAR.



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**REPORT OF THE SURGEON-GENERAL.**

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# REPORT OF THE SURGEON-GENERAL.

WAR DEPARTMENT, SURGEON GENERAL'S OFFICE,  
*Washington, D. C., September 6, 1902.*

SIR: In rendering this report I have the honor to submit first, a statement of disbursements made during the fiscal year ended June 30, 1902.

## FINANCIAL STATEMENT, 1902.<sup>a</sup>

*Medical and hospital department, 1902.*

Appropriated by act approved March 2, 1901.....	\$2,000,000.00
Sales to Quartermaster's Department .....	\$588.00
Sales to civil government, Philippine Islands.....	23,206.69
Sales to States and Territories for use of National Guards .....	2,266.64
Other refundments during the year (including transfer settlement by Treasury Department to adjust appropriations, \$619.31).....	902.59
	26,963.92
Total to be accounted for .....	2,026,963.92
<b>Disbursed during the year:</b>	
Expenses of medical supply depots .....	\$493.02
Medical supplies .....	286,804.37
Medical attendance and medicines.....	11,240.50
Medical expenses of recruiting .....	48,875.64
Pay of nurses .....	3,975.95
Pay of other employees.....	122,170.48
Washing of hospital linen .....	40,960.43
Expressage .....	127.60
Notary fees .....	93.90
	514,741.89
Transferred by Treasury settlements to adjust appropriations .....	333.54
Balances on hand June 30, 1902:	
In United States Treasury and in transit thereto.. <sup>b</sup>	\$1,436,615.30
In hands of disbursing officers—	
New York City.....	30,701.85
Washington, D. C. ....	11,661.20
St. Louis, Mo. (and in transit thereto).....	13,862.83
San Francisco, Cal.....	7,551.57
Havana, Cuba.....	676.81
Manila, P. I.....	10,737.94
Iloilo, P. I.....	64.92
Pekin, China.....	16.07
	1,511,888.49
Total accounted for .....	2,026,963.92

<sup>a</sup> The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury and charged by them to these appropriations.

<sup>b</sup> Of this amount \$1,000,000 was transferred July 1, 1902, to the appropriation "Medical and hospital department, 1903," by virtue of the act approved June 30, 1902.



*Medical and hospital department, 1901.*

Balances on hand July 1, 1901, acts of May 26, 1900, and March 3, 1901.	\$343,031.78	
Sales to States for use of National Guards .....	\$148.08	
Other refundments during the year (including transfer settlements by Treasury Department to adjust appropriations, \$333.54) .....	777.95	926.03
		<u>926.03</u>
Total to be accounted for .....		<u>343,957.81</u>
Disbursed during the year:		
Expenses of medical supply depots .....	\$91.92	
Medical supplies .....	99,983.27	
Medical attendance and medicines .....	2,869.56	
Medical expenses of recruiting .....	4,662.50	
Pay of nurses .....	569.70	
Pay of other employees .....	6,412.55	
Washing of hospital linen .....	6,314.25	
		120,903.75
Transferred by Treasury settlement to adjust appropriations .....		619.31
Balances on hand June 30, 1902:		
In United States Treasury .....	\$219,232.22	
In hands of disbursing officer, Washington, D. C. ....	3,202.53	
		<u>222,434.75</u>
Total accounted for .....		<u>343,957.81</u>

*Medical and hospital department, 1900.*

Balances on hand July 1, 1901, acts of March 3, 1899, and February 9, 1900 .....	\$110,222.28	
Refundments during the year .....	77.07	
		<u>110,299.35</u>
Disbursed during the year:		
Medical supplies .....	\$5.37	
Medical attendance and medicines .....	192.31	
Medical expenses of recruiting .....	172.55	
Pay of employees .....	431.00	
Washing of hospital linen .....	22.35	
Exchange on funds to island possessions .....	28.65	
		852.23
Carried to surplus fund .....		<u>109,447.12</u>
Total accounted for .....		<u>110,299.35</u>

*Medical and hospital department, 1899 and prior years.*

Refundment during the year .....	\$15.00
Carried to surplus fund .....	15.00

*Medical and hospital department, certified claims.*

Appropriated by act approved February 14, 1902 .....	\$662.01	
Appropriated by act approved July 1, 1902 .....	4,226.66	
		<u>\$4,888.67</u>
Disbursed .....		<u>4,888.67</u>

*Appropriation for national defense, certified claims.*

Appropriated by act approved July 1, 1902 .....	\$70.50
Disbursed .....	70.50

*Reimbursement to contract nurses (traveling expenses).*

Balance on hand July 1, 1901, act of June 6, 1900 .....	\$3,322.56
Disbursed during the year .....	19.88
Balance in United States Treasury June 30, 1902 .....	3,302.68
Total accounted for .....	3,322.56

*Artificial limbs, 1902.*

Appropriated by act approved March 3, 1901 .....	\$125,000.00
Disbursed during the year .....	116,185.00
Balance on hand June 30, 1902 .....	8,815.00

*Artificial limbs, 1901.*

Balance July 1, 1901, act of June 6, 1900 .....	\$16,185.39
Disbursed during the year .....	5,482.58
Balance on hand June 30, 1902 .....	10,702.81

*Artificial limbs, 1900.*

Balance July 1, 1901, act of March 3, 1899 .....	\$36,334.00
Disbursed during the year .....	991.85
Carried to surplus fund .....	35,342.15
Total accounted for .....	36,334.00

*Artificial limbs, 1899.*

Balance July 1, 1901, act of July 1, 1898 .....	\$4.68
Carried to surplus fund .....	4.68

*Artificial limbs, certified claims.*

Appropriated by act approved—	
February 14, 1902 .....	\$121.96
July 1, 1902 .....	41.76
Total to be accounted for .....	163.72
Disbursed .....	163.72

*Appliances for disabled soldiers, 1902.*

Appropriated by act approved March 3, 1901 .....	\$2,000.00
Disbursed during the year .....	1,375.35
Balance on hand June 30, 1902 .....	624.65

*Appliances for disabled soldiers, 1901.*

Balance July 1, 1901, act of June 6, 1900 .....	\$545.48
Disbursed during the year .....	63.00
Balance on hand June 30, 1902 .....	482.48

*Appliances for disabled soldiers, 1900.*

Balance July 1, 1901, act of March 3, 1899 .....	\$905.25
Carried to surplus fund .....	905.25

*Army Medical Museum, 1902.*

Appropriated by act approved March 2, 1901 .....	\$5,000.00
Disbursed during the year .....	2,838.44
	<hr/>
Balance on hand June 30, 1902 .....	2,161.56

*Army Medical Museum, 1901.*

Balance July 1, 1901, act of May 26, 1900 .....	\$2,110.30
Disbursed during the year .....	1,550.16
	<hr/>
Balance on hand June 30, 1902 .....	560.14

*Army Medical Museum, 1900.*

Balance July 1, 1901, act of March 3, 1899 .....	\$660.43
Carried to surplus fund .....	660.43

*Library, Surgeon-General's Office, 1902.*

Appropriated by act approved March 2, 1901 .....	\$10,000.00
Disbursed during the year .....	7,110.57
	<hr/>
Balance on hand June 30, 1902 .....	2,889.43

*Library, Surgeon-General's Office, 1901.*

Balance July 1, 1901, act of May 26, 1900 .....	\$3,324.13
Disbursed during the year .....	3,260.64
	<hr/>
Balance on hand June 30, 1902 .....	63.49

*Library, Surgeon-General's Office, 1900.*

Balance July 1, 1901, act of March 3, 1899 .....	\$11.21
Carried to surplus fund .....	11.21

*Furnishing trusses to disabled soldiers (sections 1176, 1177, and 1178, Revised Statutes, and act of March 3, 1879).*

Expended during the year .....	\$7,016.66
--------------------------------	------------

*Relief of citizens of the French West Indies (act approved May 13, 1902).*

Drawn by the Medical Department of the Army .....	\$5,000.00
Balance on hand June 30, 1902 .....	5,000.00

## ARTIFICIAL LIMBS AND THEIR COMMUTATION.

Under the provisions of law relating to artificial limbs there were furnished during the year ended June 30, 1902, 39 artificial legs, 1 arm, and 1 foot. Commutation certificates were issued for 133 cases of amputated leg, 79 of amputated arm, 12 of amputated foot, and for 2,029 cases of the loss of the use of a limb. These cases involved an expenditure of \$116,185.

For the year ending June 30, 1903, the sum of \$514,000 was estimated for and appropriated June 28, 1902.

During the year ending June 30, 1904, the cases which matured during the year ending June 30, 1901, and were paid out of the appropriation for that year will again require to be met. The disbursements from that appropriation amounted to \$162,297.19. It is calculated from an examination of the records that about 7 or 8 per cent of the men on whose behalf this money was expended will have died before

the time when another benefit would become due, but this reduction in the number of beneficiaries will be in part offset by claimants disabled in the Spanish-American war and in the Philippines. In view of these considerations, it is estimated that the sum of \$152,000 will suffice to cover disbursements under the laws relating to artificial limbs during the fiscal year 1904.

#### APPLIANCES FOR DISABLED SOLDIERS.

During the past year the sum of \$1,438.35 was expended for 182 appliances issued to disabled soldiers.

#### TRUSSES.

The number of trusses issued and fitted during the year was 911, at a cost of \$7,016.66.

#### CARE OF DESTITUTE PATIENTS IN THE PROVIDENCE HOSPITAL, WASHINGTON, D. C.

The act of Congress approved March 3, 1901, appropriated \$19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with this hospital by the Surgeon-General of the Army. The relief afforded under this appropriation was as follows:

Patients in hospital July 1, 1901.....	102
Admitted during the year.....	1,215
<hr/>	
Total number treated.....	1,317
Average number admitted per month.....	110
Number remaining in hospital June 30, 1902.....	101
Total number of days' treatment afforded.....	43,649
Average number of days' treatment per patient.....	31
Average number of patients treated per day.....	120
Longest term of treatment (days).....	365
Shortest term of treatment (day).....	1
Number of patients in hospital during the whole year.....	9

#### ARMY MEDICAL MUSEUM.

The total number of specimens in the Army Medical Museum at the end of the fiscal year, June 30, 1902, was 35,516. The following statement shows, in detail, the additions and changes in the different sections:

Pathological section:	
In museum June 30, 1901.....	12,153
Discarded.....	2
<hr/>	
	12,151
Transferred from provisional pathological section.....	4
Received during the year.....	287
<hr/>	
In museum June 30, 1902.....	12,442
<hr/>	
Anatomical section:	
In museum June 30, 1901.....	1,552
Discarded.....	1
<hr/>	
	1,551
Received during the year.....	82
<hr/>	
In museum June 30, 1902.....	1,633
<hr/>	

Section of comparative anatomy:	
In museum June 30, 1901 .....	1, 432
Discarded .....	2
	<hr/>
In museum June 30, 1902 .....	1, 430
	<hr/>
Microscopical section:	
In museum June 30, 1901 .....	12, 891
Added during the year .....	25
	<hr/>
In museum June 30, 1902 .....	12, 916
	<hr/>
Miscellaneous section:	
In museum June 30, 1901 .....	2, 534
Received during the year .....	71
	<hr/>
In museum June 30, 1902 .....	2, 605
	<hr/>
Provisional pathological section:	
In museum June 30, 1901 .....	1, 326
Discarded .....	20
Transferred to pathological section .....	4
Donated to physicians .....	30
	<hr/>
	54
	<hr/>
In museum June 30, 1902 .....	1, 272
	<hr/>
Provisional anatomical section:	
In museum June 30, 1901 .....	678
Donated to physicians .....	19
	<hr/>
In museum June 30, 1902 .....	659
	<hr/>
Photographic series:	
In museum June 30, 1901 .....	2, 422
Returned to contributor .....	4
	<hr/>
	2, 418
Received during the year .....	141
	<hr/>
In museum June 30, 1902 .....	2, 559

## RECAPITULATION.

Specimens in museum June 30, 1901 .....	34, 988
Discarded, donated, and returned to contributor .....	78
	<hr/>
	34, 910
Added during the year .....	606
	<hr/>
Specimens in museum June 30, 1902 .....	35, 516

The following are some of the more interesting specimens added to the museum collection during the past fiscal year:

## EMBRYOLOGY.

- 3815 (anat. ser.). Twenty-two models showing cleavage of ovum and formation of gastrula.
- 3816, 3817 (anat. ser.). Two models showing development of human embryo.
- 3919, 3920 (anat. ser.). Two models showing development of human skull.
- 3830-3838 (anat. ser.). Nine models showing development of vertebrate eye.
- 3821-3828 (anat. ser.). Eight models showing development of urogenital apparatus and perineum.

## ANOMALIES, DISEASES AND INJURIES.

- 3840 (anat. ser.). A scapho-cephalic human skull, with metopic suture.
- 12294 (path. ser.). Prehistoric human bones from a grave in France. Donated by Dr. C. V. Du Bouchet, Paris, France.
- 12396-12399 (path. ser.). Three specimens of healed fractures of long bones and one of arthritis deformans of hip joint, from an Indian mound in Florida. Donated by C. B. Moore, Philadelphia, Pa.
- 12335 (path. ser.). Exfoliation of cuticle from use of quinine. Presented by Dr. E. W. Reisinger, Washington, D. C.
- 12388 (path. ser.). Fatal gangrene in acute pemphigus in a child. Contributed by Dr. S. S. Adams, Washington, D. C.
- 12400-12449 (path. ser.). Fifty models illustrating the rarer forms of diseases of the skin. Made by Baretta, Paris.
- 12365, 12366 (path. ser.). Two cases of cerebral hemorrhage, and one of cerebral meningitis, which affected only the convexity, and was due to diplococcus lanceolatus. Contributed by Dr. D. S. Lamb, Washington, D. C.
- 12326 (path. ser.). Tubercular tumor of cerebellum in a child with general tuberculosis. Contributed by Dr. G. N. Acker, Washington, D. C.
- 12369 (path. ser.). Hydrocephalic dilatation of back part of brain of child. Contributed by Dr. D. S. Lamb, Washington, D. C.
- 12376 (path. ser.). Congenital stenosis of pulmonary artery in a child. Contributed by Dr. D. S. Lamb, Washington, D. C.
- 12309 (path. ser.). A case of stab wound of heart in which the wound was sutured; patient died. Contributed by Dr. G. T. Vaughan, U. S. M. H. S.
- 12313 (path. ser.). A case of fatal shot wound of heart. Contributed by Asst. Surg. W. P. Chamberlain, U. S. Army.
- 12373 (path. ser.). Aneurism of abdominal aorta; death from rupture. Contributed by Dr. G. N. Acker, Washington, D. C.
- 12332 (path. ser.). Excision of varicose veins; recovery and return to duty. Contributed by Surg. C. F. Mason, U. S. Army.
- 12380 (path. ser.). Rupture of spleen from a kick; splenectomy; death. Contributed by Dr. E. A. Balloch, Washington, D. C.
- 12273 (path. ser.). Leukemic spleen removed from a woman, aged 40; death. Contributed by Dr. W. A. Warfield, Washington, D. C.
- 12390 (path. ser.). Rupture of adrenals with hemorrhage; unilateral hydronephrosis in a child; sudden illness and death. Contributed by Dr. J. Ford Thompson, Washington, D. C.
- 12383 (path. ser.). Tongue removed for carcinoma; death. Contributed by Dr. E. A. Balloch, Washington, D. C.
- 12325 (path. ser.). Stricture of œsophagus from drinking lye; artificial gastric fistula; death one year afterward. In a child. Contributed by Dr. J. Ford Thompson, Washington, D. C.
- 12375 (path. ser.). Primary sarcoma of omentum; woman, aged 55. Contributed by Dr. J. Preston Miller, Washington, D. C.
- 12385 (path. ser.). Fatal volvulus; man, aged 35. Contributed by Dr. G. T. Vaughan, U. S. M. H. S.
- 12334 (path. ser.). Sudden fatal hæmatemesis in cancer of stomach; man, aged 70. Contributed by Dr. T. C. Smith, Washington, D. C.
- 12272 (path. ser.). Perforating ulcer of duodenum; fatal peritonitis; man, aged 38. Contributed by Asst. Surg. G. M. Wells, U. S. Army.
- 12377 (path. ser.). Typhoid lesions of ileum, limited to the last 2 feet; perforation; fatal. Contributed by Asst. Surg. J. H. Ford, U. S. Army.
- 12337, 12338 (path. ser.). Two cases of fatal subcapsular hemorrhage in the new born. Contributed by Drs. W. C. Woodward and D. S. Lamb, Washington, D. C.
- 12391 (path. ser.). Cancer of liver. Contributed by Dr. D. C. Huffman, Dayton, Ohio.
- 12392 (path. ser.). Large biliary cysts of liver. Contributed by Dr. H. L. E. Johnson, Washington, D. C.
- 12305 (path. ser.). Primary carcinoma of lungs. Contributed by Dr. C. W. Franzoni, Washington, D. C.
- 12329 (path. ser.). Pneumonia, with endocarditis of right side. Contributed by Dr. D. S. Lamb, Washington, D. C.
- 12314 (path. ser.). Encysted bullet. Contributed by Dr. J. Ford Thompson, Washington, D. C.
- 12330, 12331 (path. ser.). Two cases of fatal shot fractures of thoracic vertebræ. Contributed by Surg. William Stephenson, U. S. Army.

- 12386, 12387 (path. ser.). Two amputations for sarcoma of bone—one of the femur and the other of the fibula. Contributed by Drs. G. T. Vaughn, U. S. M. H. S., and V. B. Jackson, Washington, D. C.
- 12298 (path. ser.). Model of the mouth of the dwarf "Prince Tynymite." Contributed by Dr. W. H. Steeves, Frederickton, New Brunswick.
- 12282 (path. ser.). A soft gold filling 52 years old. Contributed by Dr. C. W. Barnes, Porto Alegre, Brazil.
- Specimens showing anomalies of the roots of teeth; germinate teeth; supernumary teeth; impacted teeth; enamel nodules; odontoma; hypercementosis; misplacement of teeth; erosion of teeth; obliteration of pulp cavity; wear; tartar; absence of teeth; caries; narrow dental arch; abnormal depression of palate; nonocclusion of teeth; abnormalities of gums; crown work. Donated by Drs. W. C. Achard, Zurich, Switzerland; F. E. Buck, Jacksonville, Fla.; T. T. Fauntleroy, Staunton, Va.; A. H. Fuller, St. Louis, Mo.; J. M. Henriques, Buenos Ayres; T. S. Hitchcock, Oswego, N. Y.; E. W. Murlless, Sidney, Nebr.; Z. I. Nutt, Washington, D. C.; F. B. Oliver, Hammond, Ind.; J. T. Orozeo, San Salvador, C. A.; H. W. Parsons, Wamego, Kans.; M. C. Smith, Lynn, Mass.; T. Siqveland, Brooklyn, N. Y.; T. C. Triggert, St. Thomas, Canada.
- 12283, 12284 (path. ser.). Native artificial dentures from Ceylon. Contributed by Dr. N. M. Caina, Colombo, Ceylon.
- 12295-12297 (path. ser.). Artificial dentures of hippopotamus ivory. Contributed by Dr. C. V. Du Bouchet, Paris, France.
- Forty-three wax models, showing smallpox in progressive stages, chicken pox, and vaccination. Made by B. E. Dahlgren, Philadelphia, Pa.
- 12395 (path. ser.). Suprapubic lithotomy; man, aged 72; recovery. Contributed by Dr. B. G. Pool, Washington, D. C.
- 12384 (path. ser.). Prostatectomy for hypertrophy; man, aged 60; death. Contributed by Dr. E. A. Balloch, Washington, D. C.
- 12382 (path. ser.). Epitheloma of penis; amputation; recovery. Contributed by Surg. W. D. Crosby, U. S. Army.
- 12394 (path. ser.). Tuberculosis of uterus and tubes; girl of 12. General tuberculosis. Contributed by Dr. J. Ford Thompson, Washington, D. C.

## LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

The following table shows the additions made to the library during the fiscal year 1901-2:

Description.	On hand June 30, 1901.	Added dur- ing fiscal year.	Total June 30, 1902.
	<i>Volumes.</i>	<i>Volumes.</i>	<i>Volumes.</i>
Medical journals.....	41,881	1,394	43,275
Medical transactions.....	6,659	318	6,972
Bound theses.....	2,134	20	2,154
Bound pamphlets.....	2,805	61	2,866
Other medical books.....	87,060	2,478	89,538
Total.....	140,539	4,261	144,800
Medical theses.....	63,637	1,386	65,023
Medical pamphlets.....	172,834	7,144	179,978
Total.....	236,471	8,530	245,001

Of the total number of theses on hand June 30, 1901, there were 257 bound in 20 volumes during the year.

There were presented to the library during the year 636 books and 9,542 pamphlets and journals.

Volume VII, second series, of the Index Catalogue includes the letters H and I, from "Hernia" to "Inquiry," and forms a volume of 1,003 pages. It will be ready for distribution at the usual time. The

appropriation for Volume VIII, second series, having been made, the manuscript is in course of preparation for the printer.

#### HOSPITAL CONSTRUCTION AND REPAIR.

During the past fiscal year modern hospitals were completed at Fort Robinson, Nebr.; Fort Mason, Cal.; Fort Getty, S. C., and Fort Leavenworth, Kans. The hospital at the latter post was paid for from a special appropriation of \$60,000 authorized by Congress and is equipped with all modern appliances, thus forming a general model for large military posts.

Additions to the hospitals at Forts Hancock, N. J.; Screven, Ga., and Morgan, Ala., have been completed. Temporary buildings were erected at Fort Riley, Kans., to increase the hospital accommodations, and Congress was asked for a special appropriation of \$100,000 to erect a modern hospital for 100 beds at this post.

A mortuary was erected for use in connection with the hospital at Fort Screven, Ga., and plans have been prepared for new hospitals to be erected at Fort Miley, Cal.; Fort Banks, Mass., and Fort Greble, R. I. Plans have also been prepared for additions to the hospitals at Fort Robinson, Nebr.; Fort Meade, S. Dak.; Fort Snelling, Minn.; Fort Wadsworth, N. Y.; Fort Hunt, Va.; Fort Washington, Md., and Fort Hancock, N. J. Some of these hospital buildings and additions are in course of erection and others are being figured on in the market.

Repairs and improvements have been made to all hospitals requiring them in the United States; also to the hospitals in Porto Rico and the Philippine Islands.

#### MEDICAL OFFICERS, UNITED STATES ARMY.

The number of medical officers allowed by the act approved February 2, 1901, is 321. The number in service on June 30, 1901, was 272, leaving on that date 49 vacancies to be filled. During the fiscal year ended June 30, 1902, the following changes occurred in the personnel:

*Appointments.*—First lieutenants, assistant surgeons, 39.

*Promotions.*—One colonel, assistant surgeon-general, to be brigadier-general, Surgeon-General; 5 lieutenant-colonels, deputy surgeons-general, to be colonels, assistant surgeons-general; 7 majors, surgeons, to be lieutenant-colonels, deputy surgeons-general; 8 captains, assistant surgeons, to be majors, surgeons; and 5 lieutenants, assistant surgeons, to be captains, assistant surgeons.

*Resignations.*—Two first lieutenants, assistant surgeons.

*Retirements.*—One brigadier-general, Surgeon-General; 1 colonel, assistant surgeon-general, and 2 lieutenant-colonels, deputy surgeons-general, all by operation of law, together with 1 colonel, assistant surgeon-general, at his own request after forty years of service; 1 colonel, assistant surgeon-general; 1 major, surgeon; and 1 lieutenant, assistant surgeon, on account of disability.

*Wholly retired.*—One lieutenant, assistant surgeon.

*Died.*—One colonel, assistant surgeon-general.

Army medical boards for the examination of candidates for appointment in the Medical Corps of the Army have continued in session during portions of the fiscal year in Washington, D. C., San Francisco,



Cal., and Manila, P. I. The following is a summary of the work performed by each board:

Board at Washington, D. C.—

Number of candidates invited to appear.....	202
Declined to appear.....	17
Failed to appear.....	38
	55
Number of candidates examined.....	147
Approved.....	28
Physically disqualified.....	46
Rejected.....	39
Withdrew.....	34

Board at San Francisco, Cal.—

Number of candidates invited to appear.....	17
Failed to appear.....	4
	13
Approved.....	4
Physically disqualified.....	3
Withdrew.....	6

Board at Manila, P. I.—

Number of candidates examined.....	32
Approved.....	8
Physically disqualified.....	6
Rejected.....	8
Withdrew.....	10

Of 192 candidates examined by these boards 55 were rejected as disqualified physically, 97 withdrew in the progress of the examination or were rejected on its conclusion, and 40 were approved and recommended for appointment.

The candidates appearing before the board in Washington consisted almost entirely of young medical graduates, very few having been in service as volunteer officers or contract surgeons. It is quite gratifying to note that while the standard of examination has been maintained the percentage of those approved has increased during the year ended June 30, 1902, to 19.05 per cent from 16.67 per cent during the previous fiscal year. A large proportion of the candidates examined by the board in San Francisco had been or were at the time in service as medical officers, and all of those who came before the board at Manila were in service at the time of examination. As those in service had been required to pass a more or less rigid examination before appointment, the percentage of those approved is naturally somewhat higher than among the candidates appearing before the board in Washington.

THE ARMY MEDICAL SCHOOL.

The fifth and last session of the army medical school began November 4, 1901, and ended April 4, 1902, with a class of 23 students, all of whom were young assistant surgeons recently appointed in the Medical Corps of the Regular Army.

During the three years that have elapsed since the close of its fourth session in 1898, the operations of the school have been suspended

owing to the exigencies of the service, and some changes have occurred in the personnel of the faculty, as shown in Special Orders, No. 140, Headquarters of the Army, June 17, 1901, paragraph 12; Special Orders, No. 238, October 16, 1901, paragraph 27, and Special Orders, No. 255, November 4, 1901, paragraph 19.

The personnel of the faculty during the fifth session of the school was as follows:

Col. William H. Forwood, assistant surgeon-general, U. S. Army, president of the school.

Col. Charles Smart, assistant surgeon-general, U. S. Army, professor of military hygiene and director of the chemical laboratory.

Col. Calvin De Witt, assistant surgeon-general, U. S. Army, professor of military medicine.

Lieut. Col. J. Van R. Hoff, deputy surgeon-general, U. S. Army, lecturer on the duties of medical officers in war and peace.

Maj. Walter Reed, surgeon, U. S. Army, professor of clinical and sanitary microscopy, and director of the pathological laboratory.

Maj. L. A. La Garde, surgeon, U. S. Army, lecturer on gunshot injuries. (Auxiliary course in clinical optometry.)

Maj. William C. Borden, surgeon, U. S. Army, professor of military surgery, demonstrator in operations on the cadaver and surgical clinics.

Capt. F. P. Reynolds, assistant surgeon, U. S. Army, instructor in hospital-corps drill and first aid to the wounded.

Capt. E. L. Munson, assistant surgeon, U. S. Army, assistant to the professor of hygiene.

The following auxiliary lectures were given by courtesy, at the invitation of the Surgeon-General, for which the thanks of the faculty and the student officers are hereby most cordially tendered:

By Brig. Gen. George B. Davis, Judge-Advocate-General of the Army, on medical jurisprudence, military law, and courts-martial.

By Prof. C. W. Stiles, Ph. D., Agricultural Department, Bureau of Animal Industry, on parasites in man.

By Dr. Robert Fletcher, F. R. C. S., England, assistant librarian, on the great library of the Surgeon-General's Office and its uses.

The hours of instruction were daily, except Saturdays, Sundays, and holidays, from 9 to 12 a. m. and 1 to 4 p. m. On Saturdays, from 9 to 12, instruction in first aid, hospital corps drill, and equitation at Washington Barracks and clinical surgery at the general hospital.

Meetings of the faculty were held regularly for the consideration of business pertaining to the school, but no resolution involving any change in the course of instruction or expenditure for material, except a few small items in connection with the graduating exercises, was adopted.

Examinations began March 22, 1902, and continued daily to include April 2, 1902, and after due consideration by the faculty the relative proficiency of the student officers in each branch was determined.

The general department of the student officers was most exemplary throughout the five months' course. They devoted themselves diligently and attentively to the duties of the school and worked with zeal and energy to improve the splendid opportunity offered and joined heartily in the competitive struggle for graduating honors.

"The Alexander H. Hoff memorial gold medal," founded by Lieut. Col. John Van R. Hoff, in memory of his father, a former member of

the corps, was offered to the student who should receive the highest average markings at final examination, and in this instance was awarded to First Lieut. and Asst. Surg. James M. Phalen, U. S. Army.

It was reserved for those who should attain a standing of not less than 90 per cent in the total markings to receive the distinction of "honor graduate," and this was gained by three members of the class in addition to the winner of the medal—Lieutenants Koerper, O'Connor, and Patterson. These honorary inducements held out as an incentive to competitive effort produced a marked effect in arousing the energy, holding the attention, and maintaining the interest of the class in a good-natured rivalry for preferment, which prevailed from the beginning to the end of the session.

An average of 70 per cent was fixed as the minimum for graduation with a diploma, and this was attained by all, as will be seen by reference to the table of markings, where the relative standing of each student is given.

The graduating exercises were held in the hall of the National Museum, at 3 p. m. on April 4, and I desire to express the thanks of the faculty and the student officers to Secretary Langley and the Board of Regents for their courtesy in extending to us the privileges of the hall for that occasion, and also to the commanding officer of the Engineer Battalion, Washington Barracks, who kindly sent us the band which furnished excellent music to enliven the proceedings.

The diplomas were presented with some eloquent and appropriate remarks by the honorable Secretary of War and the memorial medal by its founder, after which an address of much force and permanent value was delivered to the class by Surgeon-General Sternberg, and, finally, the Lieutenant-General of the Army made an able and earnest appeal to the student officers of an advisory character as to their future career in the military service.

#### MEDICAL OFFICERS, VOLUNTEERS.

The act of February 2, 1901, reorganizing the Army, authorized the appointment of 50 surgeons of volunteers with the rank of major, and 150 assistant surgeons of volunteers with the rank of captain, all for service in the Division of the Philippines. On June 30, 1901, the full complement authorized by law was in commission. During the year ended June 30, 1902, 9 majors, surgeons, were discharged from service, 1 died, and 1 was killed in action, making a loss of 11 majors, surgeons, which was repaired by the appointment of 2 majors, surgeons, and the promotion of 9 captains, assistant surgeons. The loss among the captains, assistant surgeons, during the year consisted of 22 discharged from the service, 1 died, and 9 promoted, making a total of 32 replaced by new appointments, leaving in service June 30, 1902, the full complement of 50 majors, surgeons, and 150 captains, assistant surgeons, allowed by law.

#### CONTRACT SURGEONS, UNITED STATES ARMY.

There were in service June 30, 1901, 387 contract surgeons. During the year ended June 30, 1902, contracts were made with 60 physicians; 172 contracts were annulled and 2 terminated by death, leaving 273 under contract. No contracts are now being made and a gradual

reduction in the number of these surgeons is being effected by natural causes.

The two who died during the fiscal year were: Conn R. Ohliger, August 20, 1901, drowned in the Island of Samar; Guy S. Dean, September 15, 1901, pulmonary tuberculosis, at Santa Mesa Hospital, Manila, P. I. The following tabulation shows the number of contracts made with physicians from April 17, 1898, to December 31, 1901, classified by length of service; also, the number serving each year:

Length of service.	Dec. 31, 1901.		
	Not in service.	In service.	Total.
Under 1 month .....	36	1	37
1 to 6 months .....	350	2	352
6 to 12 months .....	176	33	209
1 to 2 years .....	240	144	384
2 to 3 years .....	153	36	189
Over 3 years .....	21	57	78
<b>Total .....</b>	<b>976</b>	<b>273</b>	<b>1,249</b>

Year.	Whole number in service.	Average number in service.
1898 .....	763	343
1899 .....	674	416
1900 .....	657	482
1901 .....	594	394

Average service of the 976 out of service, 12 months 11 days.  
 Average service of the 273 in service, 23 months 5 days.  
 Average service of the 1,249 contract surgeons, 14 months 22 days.

CONTRACT DENTAL SURGEONS.

The organization of the Corps of Dental Surgeons authorized by the army reorganization bill approved February 2, 1901, is still in progress. On December 31, 1901, the corps was composed of 28 appointees. Of this number, 3, employed as examining and supervision dental surgeons, constituted the board of examiners for this service. Twenty candidates had passed the examinations of the board of examiners and 5 were appointed from the Army under the provisions of the act without examination by the board.

The report of the examining board shows that up to December 31, 1901, 87 candidates had been invited from the various States and Territories to take the examination. Six of these declined to appear, 10 accepted the invitation but failed to report, and 71 reported for examination. Of the 71 who reported for examination, 20 were found qualified and approved, 8 were physically disqualified, 3 failed in both the theoretical and practical examinations, 7 failed in the theoretical examinations, and 33 withdrew before completion of the theoretical examinations. Of the 43 who failed or withdrew, 15 requested and were accorded a second examination, 5 of whom passed. The number of candidates who passed upon their first examination was 15, those who passed upon the second examination were 5. Of the 28 dental surgeons appointed, 1 was assigned to duty in the Department of Cuba, 1 to the island of Porto Rico, 17 to the Division of the Philippines, and 9 to stations in the United States. The following tabulation shows

the distribution of the dental surgeons and the date of arrival at their first stations:

	United States.	Philippines.	Cuba.	Porto Rico.	Total.
1901.					
February .....	3				3
March .....		2			2
April .....					
May .....		6			6
June .....	2	3	1		6
July .....	4	3		1	8
August .....		2			2
September .....		1			1
October .....					
November .....					
December .....					
Total .....	9	17	1	1	28

Upon the adjournment of the examining board, which held continuous sessions at Washington, D. C., from February 18 to July 31, 1901, the members of the board were assigned to duty, one to the Department of Cuba, one to the Division of the Philippines, and one to the Department of California.

To facilitate the work of the corps each dental surgeon is provided with at least one assistant, who is detailed from the privates or acting stewards of the Hospital Corps. In some instances, as at the United States Army general hospital, Presidio of San Francisco, Cal., where the amount of dental service required is very great, extra details were made from the Hospital Corps of such men as showed aptitude for or had had experience in this line of work before entering the Army.

The energies and resources of the Dental Corps have been taxed to their fullest extent in caring for those officers and enlisted men who have sought their services for the relief of suffering, and this has made it necessary in some instances for the dental surgeons to operate daily from 8 a. m. to 5 or 6 p. m. The great amount of service that has been rendered by the dental surgeons could not have been accomplished but for these long hours of work and the assistance accorded them through the extra details of members of the Hospital Corps.

The whole number of patients, regulars and volunteers, that have been treated during the period covered by the reports of dental surgeons in this office are 9,148.

	Regulars.	Volunteers.
United States .....	2,872	7
Philippine Islands .....	5,174	16
Cuba and Porto Rico .....	1,079	
Total .....	9,125	23

The reports from the Philippine Islands were still incomplete when this résumé was prepared, some stations being two and three months behind, and as a consequence it does not show the actual amount of service rendered by the dental surgeons in the Philippine Division.

The services of the dental corps, however, made a highly creditable showing when the facts are taken into consideration that the corps was not fully organized at the close of the year; that much delay was experienced in transporting them to their first stations and equipping them for service. The reports in this office cover the period from June 1 to December 31, 1901, but a reference to the table of distribu-

tion of dental surgeons and date of arrival at first station will show that active work did not begin in the United States, Cuba, and Porto Rico until July and August, while in the Philippine Islands, although several dental surgeons reported for duty in Manila in June and July, active work was delayed until a still later period on account of the difficulties experienced in transporting supplies over so great a distance and the obstacles which always surround the launching of a new enterprise or a new line of service.

The character of the service so far rendered by the dental surgeons has, by reason of the great number of patients who have applied for treatment, been largely of an emergency nature, and the constant effort has been made to so treat the cases as to return the men to duty with the least possible delay and loss to the service.

The tabulations<sup>a</sup> of diseases and injuries of the mouth and jaws, of the teeth and gums, and of operations and treatment which follow, show that a large part of the time and skill of the dental surgeons was expended in giving relief from the suffering caused by dental caries, pulpitis, pericementitis, alveolar abscess, pyorrhea alveolaris, and gingivitis. The comparatively large number of teeth extractions is due to the great prevalence of dental caries of a severe type among the enlisted men who are serving or have served in Cuba, Porto Rico, or the Philippines. Instructions were issued to the dental surgeons to conserve as far as possible all teeth that could be placed in a healthy condition by appropriate treatment, so as to reduce the loss of teeth to the minimum, and these instructions have been generally carried out.

It seems to be an established fact than dental caries takes on more active symptoms among our troops after a few months' residence in a tropical climate, but whether this is due to neglect of a proper hygienic care of the teeth during active campaigning or to the depressing effect of a tropical climate upon assimilation and vital resistance in individuals going from a temperate zone, or to the necessary changes in the character of the food, remains to be demonstrated. It would seem more than probable, however, that it is due to the effects of all these conditions combined.

A reference to the statistical tables will also show that pyorrhea alveolaris and inflammatory and ulcerative conditions of the gums and oral mucus membrane are very prevalent among the officers and enlisted men who have served or are serving in the tropics. These conditions are more noticeable in those who have been in the Philippines for a considerable period and in those who have suffered from certain forms of illness. These conditions seem to be largely due in the former to the enervating and debilitating effects of the hot climate, etc., and in the latter to such wasting diseases as gastritis, diarrhea, dysentery, and the continued fevers.

Total number of treatments and operations, medical, surgical, and mechanical:

	Regulars.	Volun- teers.
United States .....	4,766	88
Philippine Islands .....	6,959	49
Cuba and Porto Rico .....	1,691	.....
Total .....	13,416	82

<sup>a</sup> Not printed.

The following tables,<sup>a</sup> compiled from 8,408 cases of dental caries treated by filling or extraction, shows the susceptibility of the individual teeth to this disease in the troops stationed in the United States, the Philippine Islands, Cuba, and Porto Rico:

The percentage of caries is considerably higher for the central and lateral incisors and cuspids, both upper and lower, than is usually given in published statistics, being in some instances more than double. In the bicuspid, upper and lower, the percentage agrees very closely with published statistics, while in the first molars, both upper and lower, it is about 4 per cent less. The latter variation may be accounted for from the fact that the first molars are very frequently lost from caries before the individual reaches the legal age for enlistment. In the second and third molars the variation in the percentage is not very different from published statistics. The comparatively low percentage of dental caries in the bicuspid and the second and third molars may also be accounted for by the fact that it was not a bar to enlistment during the Spanish-American war if the applicant had only two opposing molars, one above and one below, upon opposite sides of the mouth. Many men were therefore enlisted who had already lost the bicuspid and the other molars.

In view of these facts it would seem advisable to raise the requirement of the number of opposing molars that should be possessed by the recruit and that the general condition of all of the teeth should be taken into account before accepting him. Applicants who show signs of extensive dental caries should not be accepted for service, as such men are constantly being carried upon the company sick book on account of incapacity for duty resulting from dental diseases or have to be discharged on account of their inability to properly masticate the army ration.

The services of the Dental Corps have been highly appreciated by the officers and enlisted men of the Regular and Volunteer Armies and have proved very satisfactory to the Medical Department, because they have been able to relieve a great amount of acute suffering and to conserve a large number of teeth and restore them to a healthy condition, thus almost immediately returning to duty many cases that were previously carried for several days upon the company sick report. This has resulted in greatly reducing the loss of valuable time to the service, incident to diseases of the mouth, teeth, and jaws, and relieving and hastening the cure of such gastric and intestinal disorders as were due to defective mastication and infective and suppurative conditions of the teeth and oral cavity.

The cost of maintaining the Dental Corps is small when compared with the relief from suffering obtained and the greater efficiency of the officers and men who have received the service of the dental surgeons. Good teeth are an essential factor in maintaining the general health of our troops, and consequently their efficiency, and on account of the increasing prevalence of dental caries and the abnormal condition growing out of the disease the dental surgeon has become a necessity to the Army. Early provision should therefore be made for the establishment of a permanent corps of dental surgeons attached to the Medical Department.

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<sup>a</sup> Not printed.

## HOSPITAL CORPS.

At the date of last report, June 30, 1901, the total strength of the corps was 4,336 men, viz:

Hospital stewards .....	246
Acting hospital stewards.....	388
Privates .....	3,702
	<u>4,336</u>

Since then it gained, up to June 30, 1902—

By enlistment and reenlistment .....	1,282
By transfer from the line .....	548
From desertion .....	18
	<u>1,848</u>
Total .....	6,184

And lost during the same period—

By discharge per expiration of service .....	1,772
By discharge by order .....	112
By discharge by sentence of general court-martial .....	34
By discharge on surgeon's certificate of disability.....	66
By retransfer to line.....	17
By retirement.....	6
Killed in action .....	1
By death due to disease.....	32
By death due to drowning .....	2
By death due to suicide.....	2
By death due to accident .....	6
By desertion.....	92
	<u>2,142</u>

Leaving in service June 30, 1902, a total of..... 4,042

Hospital stewards .....	271
Acting hospital stewards.....	405
Privates .....	3,366
	<u>4,042</u>

*Hospital stewards.*—The number of hospital stewards allowed by law is 300. Forty-four vacancies existed on June 30, 1901; 15 men were appointed during the past fiscal year, leaving 29 vacancies June 30, 1902, which were filled September 1 as the result of the examination held in May. The reports of the examining boards, together with written examination, were received at this office from the Division of the Philippines August 20, 1902.

The total number of applicants in the Division of the Philippines for the examination for the position of hospital steward held at this time was 42. Two of these were disapproved. Of the 40 approved applicants 2 were discharged prior to examination, 3 reported too late for examination, and 13 withdrew from examination, leaving 22 who were fully examined. Of these 22, 13 were recommended and 9 not recommended for appointment by the local boards. Of the 13 recommended 5 averaged in the written examination between 80 and 90, 7 between 70 and 80, and 1 failed.

Forty-five applications were received from acting hospital stewards serving in the United States, Alaska, and Cuba, 2 acting stewards withdrew, and 4 were not examined, 1 being at sea and 3 in Alaska. Of the 39 examined 8 were not recommended by the local boards, 5



failed to reach the minimum (70 per cent), and 26 made over 70 per cent, 8 over 90 per cent, 11 from 80 to 89, and 7 from 70 to 79 per cent. Of the 8 who made over 90 per cent, 7 have been appointed hospital stewards and 1 is awaiting for a few days completion of his twelve months' service as acting hospital steward, as required by law.

The questions for this examination were prepared in the Surgeon-General's Office, each set inclosed in a separate envelope, carefully sealed with wax, and forwarded to the respective chief surgeons, with directions that the president of each of the different examining boards should retain the envelope in his personal possession, open it only on the day of the examination, and certify that it was received in good condition.

During the year 207 acting hospital stewards have been detailed, 46 by the Surgeon-General and 161 by chief surgeons, the latter as follows:

Department of California .....	9
Department of the Colorado.....	1
Department of the Columbia.....	6
Department of Dakota.....	3
Department of the East.....	24
Department of the Missouri.....	12
Department of Texas.....	1
Department of the Lakes.....	7
Department of Cuba.....	6
Division of the Philippines.....	92
Total .....	161

Within certain limitations the number of promotions to the grade of acting hospital steward is an excellent index of the results of the systematic instruction of the Hospital Corps now being carried on throughout the Army. The regulation proportion of one noncommissioned officer to four privates has not yet been attained, but it is believed that in a short period it will be.

In order to increase the efficiency of the Hospital Corps and give the private soldiers the same opportunity as that enjoyed by those of the line, the Surgeon-General recommended in August, 1901, the addition of a paragraph to the regulations authorizing the appointment of lance acting hospital stewards. This authority was granted in General Orders, No. 139, Adjutant-General's Office, November 2, 1901. This affords an opportunity to test the men as to their qualifications for the position of noncommissioned officers and has worked very well up to the present time. Ninety lance acting hospital stewards have been detailed, of which number 12 were ultimately promoted to the grade of acting hospital steward.

*Recruitment.*—In September, 1901, the commanding general, Division of the Philippines, reported by cable that no more enlisted men of the Hospital Corps were needed in that division. In consequence thereafter recruiting for the corps was, for a short time, confined to soldiers who had been discharged with excellent character, or to recruits who possessed special qualifications.

In November, nothing further upon this subject being heard from the Division of the Philippines, the Surgeon-General invited the attention of the Adjutant-General to the fact that a large number of discharges by expiration of term of service would occur in the Hospital Corps during the next four months (about 1,275), which would materi-

ally reduce the strength of that organization in that division, where most of the men enlisted late in 1898 and early in 1899 had been sent. As it was not believed that any considerable number of these men would reenlist in the Philippines, and as there was no reserve in the United States at the time beyond 200 men at the utmost to replace the above-mentioned losses, it was believed that a very considerable number of men, including noncommissioned officers, would be needed for the Division of the Philippines, the strength of the corps in the division being then 2,500 men.

In view of the fact that recruits for this branch of the service should be given not less than four months' instruction in the rudiments of their work, preferably with a company, it is suggested as important that general recruitment be begun at the earliest possible moment.

In response to the inquiry from the War Department General Chaffee, commanding the Division of the Philippines, on November 12 cabled to the Adjutant-General that with the present number of stations in his division the chief surgeon required 2,400 men of the Hospital Corps and asked that 300 leave the United States December 1, 1901, and 110 each succeeding month for six months. He also stated that he could not fill the vacancies already caused by the departure of men for the United States.

The commanding general, Department of California, was thereupon ordered to resume the transfer of men of the Hospital Corps from the United States to the Philippines, so far as practicable to replace, man for man, the losses in that division, and the Adjutant-General invited the attention of the general recruiting officers to the fact that recruits were now urgently needed for the Hospital Corps, and directed them to report all applicants who were suitable and desired to enter this corps. He advised them that it was not absolutely necessary that applicants should have had previous service in the Army, or preliminary training as druggists, pharmacists, nurses, etc., since any bright, healthy, active young man could be enlisted, provided he had a good common school education and was of good moral character, as evidenced by recommendations. The enlistment of minors for the corps was not desired.

Under these instructions the recruitment has progressed very satisfactorily during the past year, and much credit is due to the officers of the general recruiting service for the zeal they have displayed in obtaining recruits for the Hospital Corps. A considerable number of enlistments from civil life were also made by chief surgeons to fill vacancies within their departments up to the quota allowed by existing regulations. The authority heretofore granted to chief surgeons to make enlistments without reference to this office and recommend transfers from the line to the Hospital Corps within their departments has worked admirably, saving much clerical labor to this office. It also enabled chief surgeons to meet emergencies immediately, without the former circuitous requisition upon the War Department for additional assistance.

In the Department of the East, for example, there were 154 transfers from the line to the Hospital Corps and 35 enlistments; in that of the Missouri, 20 transfers from the line and 43 enlistments and reenlistments, and in that of Texas, 30 transfers from the line and 5 enlistments. In California 276 men were transferred from the line and 187 were enlisted.

*Distribution of the Hospital Corps, United States Army, May 31, 1902, as shown by latest information on file in this office.*

	Number of troops.	Hospital stewards.	Acting hospital stewards.	Lance acting hospital stewards.	Privates.	Total.	Per cent Hospital Corps.
California .....	4,214	24	22	12	269	327	.....
Colorado .....	2,950	12	5	2	89	108	3.66
Columbia .....	2,885	13	13	.....	95	121	4.19
Dakota .....	1,860	8	6	1	56	71	3.81
East .....	13,019	44	32	2	359	437	3.35
Lakes .....	2,878	5	13	.....	71	89	3.09
Missouri .....	4,794	10	16	1	131	158	3.28
Texas .....	2,350	4	6	3	73	86	3.66
Independent .....	1,750	22	34	2	248	306	.....
Total United States.....	36,700	142	147	23	1,391	1,703	4.64
Cuba .....	900	5	4	.....	27	36	4.00
Porto Rico.....	1,500	3	4	.....	30	37	2.46
Hawaii .....	230	1	2	.....	18	21	9.13
China .....	114	1	.....	.....	6	7	6.14
Philippines.....	47,400	118	210	33	1,762	2,123	4.48
At sea .....	76	.....	16	.....	73	89	.....
Total .....	86,920	270	383	56	3,307	4,016	4.62

The number of posts and stations (including United States army transports) was during the last quarter of the fiscal year nearly as follows:

In the United States (including Alaska, Porto Rico, and Hawaii).....	156
In Cuba .....	4
In China .....	1
In the Philippine Islands.....	333
Total .....	494

According to the reports of chief surgeons and inspectors the efficiency, discipline, and instruction of the Hospital Corps are constantly improving, the best evidence of which is the number of noncommissioned officers who have passed the really severe examination required for promotion. The instructional work of the various posts has generally been well done.

Owing to the reduction of the strength of our forces without the United States and the increase of the home garrisons, causing the reoccupation of abandoned posts, the demands upon the departments to supply men for the Hospital Corps has been great, but were very generally met without calling upon this office for assistance. As a result of these demands it has been found impracticable to always maintain the detachments of instruction at the prescribed strength, or to keep the recruits under instruction long enough to fit them to undertake the practical work of a Hospital Corps man. Nevertheless the requirements have been very well met. It is believed that with the final determination of the strength of the Army and its distribution the detachments of instruction will prove an important adjunct to the medical service in the departments.

The company of instruction at the general hospital, Washington Barracks, has been maintained at the highest state of efficiency, in which connection attention is invited to the following excerpt<sup>a</sup> from a report by its efficient commander, Capt. F. P. Reynolds, assistant surgeon, U. S. Army.

<sup>a</sup> Not printed.

*Organization of the Hospital Corps company of instruction, United States Army, general hospital, Washington Barracks, D. C.*

## NONCOMMISSIONED OFFICERS.

First sergeant .....	1	Police sergeant .....	1
Property sergeant .....	1	Head cook .....	1
Mess sergeant .....	1	Instructors and assistant instructors..	10
Company clerk .....	1		
Stable sergeant .....	1	Total .....	17

## PRIVATEES ON SPECIAL DUTY.

Second cook .....	1	Company clerks .....	2
Kitchen police .....	2	Trumpeters .....	2
Dining-room attendant .....	1	Mail orderly .....	1
Diet kitchen police .....	1	Property attendant .....	1
Orderlies' room .....	3	General police .....	5
Stable police .....	1		
Ambulance driver .....	1	Total .....	22
Night watchman .....	1		

At the request of the military authorities of Pennsylvania, this company, Hospital Corps, took part in the mobilization of the National Guard of that State at Gettysburg, with results as set forth in a valuable report by Capt. F. P. Reynolds, assistant surgeon, United States Army, commanding the company.

During the year 337 men have been instructed in the company at Washington Barracks, of which number 283 were distributed chiefly to the Philippines, 4 were promoted while with the company to the grade of hospital steward and 33 to the grade of acting hospital steward, and 9 were detailed as lance acting hospital stewards.

Capt. John S. Kulp, assistant surgeon, U. S. Army, assumed command of the company of instruction, Hospital Corps, at Fort McDowell, Angel Island, Cal., March 19, 1902, and with his well-known energy has devoted himself to advancing its efficiency. It is regretted that the dearth of regular medical officers has been so great that thus far it has been found impracticable to assign another officer to assist Captain Kulp in his really arduous task. Nine hundred and sixty-one noncommissioned officers and men have passed through this organization during the year.

The company of instruction at Manila, which had attained a high degree of efficiency, was disbanded by order of the division commander August 13, 1901.

*Uniform and equipment.*—The uniform of the Army, including, of course, the Hospital Corps, was changed in General Orders, No. 81, Headquarters of the Army, Adjutant-General's Office, July 17, 1902. The changes made in the uniform of enlisted men of the Hospital Corps consist principally in the substitution of maroon for the emerald green heretofore prescribed for stripes, chevrons, etc., and of the caduceus in the place of the maltese cross, both for cap and collar ornaments and for chevrons. The modified maltese cross in green heretofore worn by privates on both sleeves is substituted by a caduceus in maroon silk, having a white border, to be worn on the dress coat and overcoat only. The overcoat is the same as for all enlisted men of the Army, viz, of olive drab wool material.

The equipment consists of fair-leather belt, shelter half, shelter poles, canteen complete, haversack complete, and tin cup for all enlisted men of the Hospital Corps. In addition to this, privates carry Hospital Corps pouch and litter sling.

The esprit de corps, which has never failed to actuate the members of this fine organization, which bears not only its full share of the hardships and dangers of the campaign and the battle, but the stress and dangers of epidemics as well, has lost nothing of its fervor during the last year. The following named have been especially commended since the date of last report:

Private Milton McCoy, Hospital Corps, was granted a certificate of merit in February, 1902.

The following-named members of the Hospital Corps have been recommended for certificates of merit during the past fiscal year:

Private Thomas Hamilton, for distinguished services in the attack on Tientsin, China, July 13, 1900, for succoring the wounded under a most severe fire of all arms.

Private David L. Van Arnan, for the high order of courage and devotion to duty shown by him throughout the campaign against the insurgent mountain stronghold near La Paz, and especially during the fight on April 26, 1900.

Private Archie D. McMurdo, for rescuing a companion from drowning in the Potomac River at Washington Barracks, D. C., July 4, 1901.

Acting Hospital Steward Walter K. Barnes, for going forward to the firing line June 3, 1900, in an engagement with insurgents and rescuing Private Perry G. Ethridge, Company A, Twenty-second Infantry, having to pass over completely exposed ground and through an intense fire.

Private George Metzger, for distinguished services in the face of and in action with the enemy.

Private William H. Phelps, for distinguished services in action at Maincling, Luzon, on the night of July 4, 1900. Under a terrific fire he left the dressing station and went to the trenches to administer to the wounded.

Private Earl W. Kitchen, for conspicuous gallantry and devotion to duty in caring for his comrades when almost exhausted.

Private Jesse Rutledge, for gallant and meritorious services in rendering first aid to the wounded at Lubao, Luzon, October 29, 1899. Private Rutledge was shot immediately after contact was made with the insurgents, but he continued to fight and render first aid for about 6 miles from Lubao.

Private Edward C. Knox, for faithful devotion to duty during an epidemic of smallpox at Bangar in July and August, he having contracted the disease at that time.

Private Louis Bertrand, for conspicuous gallantry and devotion to duty in caring for his comrades when almost exhausted and while under a heavy fire, June 19, 1899.

Private Julius Heinze, for bravery in action and meritorious conduct in attending to other wounded after he had been shot through both arms, and was severely cut across the back by native riflemen and bolomen, in Samar, and for distinguished services in the attack on Tientsin, July 13, 1900, in succoring the wounded under a most severe fire of all arms.

Private Lewis Hansen, for volunteering and nursing two very severe cases of confluent smallpox.

Hosp. Steward Adolph K. Bernes was appointed second lieutenant, Philippine Scouts, in October, 1901.

Hosp. Steward Paul Weyrauch appointed second lieutenant of cavalry in May, 1902.

Private Jason M. Walling appointed second lieutenant, Nineteenth Infantry, in July, 1901.

Hosp. Steward Charles G. Sturtevant, having passed the preliminary examination, was ordered, in August, 1902, to appear before the board at Fort Leavenworth for examination for promotion to second lieutenant, U. S. Army.

Private Graham L. Milligan was admitted to the preliminary examination at Fort Columbus, N. Y., also Acting Hosp. Steward John E. Williams.

Private Norman E. Williamson was discharged in November, 1901, to accept a position in the government biological laboratory at Manila.

It is possible that not all are mentioned in this list that are entitled to be, as copies of reports of this character are not invariably furnished this office.

From the organization of the Hospital Corps, and especially during and since the Spanish-American war, the country is especially indebted to that splendid body of noncommissioned officers, the hospital stewards of the Army, whose intelligent devotion to duty under the most trying circumstances has contributed no little to whatever success has attended the accomplishment of the herculean tasks which have fallen to the Medical Department.

I take pleasure in bearing testimony to the invaluable work done by these devoted servants of the Government.

#### ARMY NURSE CORPS.

On June 30, 1901, there were in service 178 nurses. During the fiscal year 1902, 38 nurses were appointed and 97 discharged, leaving 119 in service at the end of the year. Sixteen of the discharges in Manila were granted at the request of the nurses themselves, who desired to accept civil positions there.

Of the 119 now in service, 63 are in the Philippines and 56 in the United States. Of those in the Philippines, 34 are on duty at the First Reserve hospital, 6 at Corregidor Island, 5 at Dagupan, 6 at Calamba, and the same number at Iloilo and transferred from Vigan. Of those in the United States, 39 are on duty at the general hospital, Presidio of San Francisco, Cal., 9 at Fort Bayard, N. Mex., and 8 awaiting orders.

The desirability of a place in some army hospital in or near Washington where nurses could serve a probationary period is fully realized. The advantages of such an arrangement would be manifold. The superintendent would have an opportunity to personally observe each candidate before making recommendations for her permanent appointment, the examinations required by law could be made more thorough, and the risk of assigning unqualified or undesirable nurses to distant hospitals, involving a long and expensive journey, would be minimized.

The nurses seem to have made a place for themselves in army hospitals, and chief surgeons and commanding officers speak in high commendation of their services and conduct. One of the latter writes that "The nurses are entitled to the greatest praise and consideration."

#### MEDICAL AND HOSPITAL SUPPLIES.

The operations of the supply department have been continued in the same manner as submitted in the annual report for 1900-1901. Whenever surplus appeared in the depots in Porto Rico, Cuba, and the Philippines, owing to reduction in the military occupation of those islands, the stores were returned to the depots in the United States and applied to the ordinary issues.

A medical board was convened to revise the supply table of the Medical Department in order to give it the benefit of the experience gathered during the late war in the composition, allowance, methods of supply, and equipment. Those articles which require considerable time for manufacture, such as medical and surgical chests, and the medical equipment of field hospitals, with the exception of perishable articles, have been manufactured on the improved models, and there are now stored in the supply depot of the fireproof army museum building complete outfits for 160 regiments, in the supply depot at San Francisco the equipment of a division, and in New York that of a brigade. The perishable articles are omitted, but can be added in a

few days in case of mobilization. In addition to this there is a large amount of medical equipment distributed at the military posts, sufficient for supply to respective garrisons.

The equipment of three modern field hospitals on the basis of the new supply table, 1902, is about being assembled, one to be issued to Fort Riley for trial during the autumn maneuvers, one to the San Francisco supply depot for possible emergency or use in the contemplated camp, and one at the medical supply depot in Washington for possible emergency.

It is proposed later on to assemble those of the imperishable parts of field hospital equipment which consume much time in manufacture, so as to have a number of field hospitals sufficient for any emergency for which the regimental equipments are in stock.

It is believed that the Medical Department is now better prepared than ever to meet any demands called for by sudden emergency.

#### RECRUITING.

The total number of men examined for enlistment during the year 1901 was 58,782, of whom 56,894 were white and 1,888 were colored. The number accepted was 36,721, or 624.70 out of every thousand examined. The ratio of accepted men was 623.93 for the white and 647.78 for the colored. White men to the number of 86.67 and colored men to that of 69.38 per thousand declined enlistment. The rate of rejection on primary examination was 289.40 among the white and 282.84 among the colored candidates, giving a mean of 289.19.

Of every thousand examined 64.76 were rejected on account of imperfect physique, including overheight, underheight, overweight, and underweight; 41.14 for diseases of the eye; 38.74 for diseases of the circulatory system; 28.51 for diseases of the geneto-urinary system; 20.74 for venereal diseases; 19.96 for diseases of the digestive system; 13.00 for hernia, while 10.55 were rejected as generally unfit or undesirable; 6.80 were rejected as minors; 5.48 as unclassified; 5.12 for diseases of the integument and subcutaneous connective tissue; 4.27 for diseases of the muscles, bones, and joints; 3.10 on account of bad or doubtful character, while only 2.35 were rejected on account of illiteracy, imperfect knowledge of the English language, or mental insufficiency.

Of every thousand of the accepted men 884.97 were natives of the United States, 33.44 were born in Germany, 24.78 in Ireland, 12.50 in England, 10.81 in Canada, 5.28 in Sweden, 4.49 in Russia, 3.70 in Austria, the remainder in various other countries.

In addition to the foregoing, 29 Indians were examined, of whom 27 were enlisted as scouts and 2 for regular service.

#### IDENTIFICATION OF DESERTERS AND OTHER UNDESIRABLE MEN.

From July, 1890, the time of the first identification, to June 30, 1902, 2,827 cases have been reported to the Adjutant-General of the Army. In 29 of these cases the identification was not verified because sufficient evidence could not be obtained or because the individual died, escaped, or deserted before his case could be investigated.

Of the 2,030 cases identified up to the end of 1900, 489 men were held to service, 990 were dishonorably discharged, 300 deserted, and 251 were reported for the information of the Adjutant-General, the men having gotten out of the service before the case was reported.

#### HEALTH OF THE ARMY.

The rates of admission to sick report for disease and injury, the rate of discharge for disability, and the mortality rate for the calendar year 1901 all agree in being considerably less than the corresponding rates of the year 1900. This shows the gradual improvement in the condition of the troops, notwithstanding the fact that many of them were subject to the exposures of the tropical service in the Division of the Philippines. That the rates continue to be higher than the average rates of the previous decade, 1890-1899, is to be expected, for during eight of those ten years the Army was on home service in time of profound peace, and, owing to the great attention paid to sanitary conditions, had lower rates than at any time in its previous history. A gradual approach to the lessened rates of the decade may be seen in each of the items of the record of morbidity. Thus, the admissions to sick report in 1901 constituted 1,791.59 per thousand of the strength as compared with 2,311.81 in 1900 and with 1,502.47, the mean annual rate of the previous ten years. The rate of discharge for disability was 19.95 in 1901 as compared with 22.60 in 1900 and with 16.69 for the decade, and the death rate from all causes was 19.94 per thousand men as compared with 22.74 and 11.91, respectively. Deaths from disease constituted 9.58 per thousand of mean strength as compared with 15.79 in 1900 and with 8.49 during the years of the decade, and deaths from injury 4.36 as compared, respectively, with 6.95 and 3.42.

During the year the mean strength of the Army consisted of 92,491 men, of whom 81,885 were regulars and 10,606 volunteers.

The admission rate for troops serving in Porto Rico was 1,367.74 per thousand of strength, in the United States 1,550.25, in Cuba 1,557.49, and in the Pacific islands and China, 1,928.14. The death rate from all causes was 5.29 per thousand of strength in Cuba, 6.90 in the United States, 7.81 in Porto Rico, and 17.96 in the Pacific islands and China. Deaths from disease constituted only 3.21 per thousand in Cuba, 4.68 in the United States, and 12.40 in the Pacific islands and China. The mean strength of the commands were: In Porto Rico 1,153, in Cuba 5,297, in the United States 26,515, and in the Pacific islands and China 59,526.

At the beginning of the year the Division of the Philippines was made up of the departments of northern and southern Luzon, the Visayas, and Mindanao and Jolo. These departments were subdivided into districts, and the troops in Manila constituted a separate brigade. In July, 1901, the military designation of this separate brigade was changed to the Post of Manila, and it was made a part of the Department of Northern Luzon. In December, 1901, the departments of northern and southern Luzon were consolidated into the Department of North Philippines and the departments of the Visayas and Mindanao and Jolo into the Department of South Philippines. The districts had been abolished a month previous to this, brigades taking their place. Since then the organization has been: Department of North Philip-



pinas, headquarters, Manila, composed of four separate brigades, with headquarters at Dagupan, Pangasinan; San Fernando, Pampanga; Batangas, Batangas; Nueva Caceres, Camarines Sur, and Department of South Philippines, headquarters, Cebu, Cebu, with three brigades, headquarters, respectively, at Iloilo, Panay; Tacloban, Leyte, and Zamboanga, Mindanao.

During the fiscal year many changes have taken place also in the number of troops in the division and in the stations occupied. Both of these last have been greatly reduced. Regiments, too, have been greatly changed, nearly all those which arrived in 1899 having been transferred to the United States.

The character of service in the different parts of the archipelago has varied more during the year than in any similar period since American occupation. Although a great deal of hard field service has been done and much new country occupied, there has been a decrease in sick and mortality rates, for improved conditions in peaceful provinces have more than counterbalanced any local increase caused by arduous field service. Campaigns carried on during the year have not, however, been less trying to the stamina of troops than former ones; rather the reverse, as most of the more accessible points were already occupied by our forces at the beginning of the year and the necessity for following insurgents, hiding in the fastnesses of inaccessible mountains, added much to labors performed in the sweltering heat of the Tropics.

Col. C. L. Heizmann, assistant surgeon-general, U. S. Army, in an admirable report covering the period of his service as chief surgeon of the division, has given an interesting account of the medical and sanitary conditions affecting the troops and the civil population.

Prior to turning over the government to the civil authorities in July, 1901, a great deal had been done under military administration for the sanitary improvement of the Philippines. At that time the control of sanitary matters passed from a military board of health in Manila and from individual medical officers in the provinces, who acted in all stations as sanitary officers, to an insular board of health. This board was made up in great part of medical officers of the Army regularly detailed thereto under a member of the Commission. In provinces still under military control medical officers have acted as sanitary officers, as heretofore, and under their direction towns were cleaned, the inhabitants were vaccinated, venereal diseases controlled, contagious diseases isolated, and all necessary sanitary measures taken.

In Batangas especially, the policy of campaign pursued of gathering together inhabitants within certain zones into designated towns allowed such strict supervision by medical officers of the Army that the conditions under which the natives lived were better than ever before in the history of these islands. The natives were fed and clothed and compelled to observe sanitary laws; in consequence the death rates were much lower in the so-called reconcentration towns than in any other part of the archipelago.

Although the civil board of health as organized was intended to exercise general control of sanitary matters throughout the islands, their efforts were necessarily restricted to a great extent to the city of Manila. Provincial and municipal boards were organized, but neither a sufficiently intelligent personnel nor interest could be commanded to accomplish great results and outside of Manila, except in provinces under military control, sanitary conditions gradually grew worse until

cholera appeared in March, 1902, when, at the request of the civil governor, medical officers of the Army were given practical control of sanitary matters outside of the city at all stations of troops and in towns adjacent thereto. This work was generally entered into with the greatest enthusiasm and effects were soon seen in improved conditions.

In the past stations for troops have been determined wholly by military necessity and it has not been possible to avoid unhealthy localities. Stations, too, have been in towns, where there have been any towns which could be occupied, both as towns were centers of insurgent activity and because of the shelter afforded, so necessary in a land of tropical sunshine and rain. Individual stations have varied greatly from a sanitary standpoint, the comparatively clean and well-built cities of Manila, Cebu, and Iloilo being infinitely better than the nipa villages in the country or temporary camps in unpacified provinces.

All native towns are insanitary in many respects, but as affecting the health of soldiers the miserable methods in use for the disposal of excreta and garbage by their native neighbors are most important, as in other respects troops can be safeguarded by their own officers by providing them with good food, water, etc. In the larger cities garbage is now regularly collected for cremation or removal to a safe distance for burial, but foul cess pits still exist, even in the city of Manila, where the few so-called sewers are no more than porous drains.

Other factors which render towns unsuitable for occupation by soldiers are the close intimacy into which they are thrown with natives, with consequent danger from contagious diseases, including venereal affections and those diseases resulting from drinking bad water and eating contaminated native foods, and the ease with which vino can be procured.

Structures occupied by troops as barracks vary greatly, but are nearly all convents or private houses, only a few barracks having been constructed. Of buildings not specially erected, convents are much the best, and in some towns are very satisfactory. The greater number of structures are not so, and are gradually growing worse, as no money can be spent on buildings not belonging to the Government. Nipa buildings are not regarded as sanitary; nipa roofs harbor vermin, and split bamboo floors can not be cleaned, retaining all filth except that which drops through to soil the ground beneath. The life of even a small nipa building is short, and when size is increased sufficiently for barracks stability is much decreased.

Tents should be used in this country only as the most temporary emergency shelter; they are very hot in the dry season and unpleasantly and injuriously light, and in the wet season do not keep out the rain, and become mud holes under foot unless floored. Canvas, too, rots rapidly, and conditions, bad enough when tents are new, are decidedly worse after they have been in use a short time. Always a costly shelter here on account of the poor lasting qualities of canvas the expense of using them is enormously increased.

Station hospitals have been established in the same class of buildings as barracks, but old dwelling houses, while not desirable for barracks, are naturally worse for hospitals. Specially constructed station hospitals will be needed as well as barracks as soon as permanent stations are established. The pavilion plan should be adopted for those where size warrants such method of construction.

Drainage is entirely natural in the great majority of stations. The larger towns have open drains, some built of stone or brick, but no general system has been followed, and the fall is usually insufficient. Even in Manila the connection of stable drains and overflow pipes from cess pits, with insufficient flush and fall, makes them very insanitary. There are practically no sewers in the islands, the pervious brick or tile-closed drains in the city of Manila hardly meriting the name. The drains empty into the moat, the Pasig River, on the bay shore, or in a blind extremity. Some of the barracks are connected with them. The odorless excavator is used with general satisfaction, although if cess pits are properly constructed without overflow, with water-closets attached, they require very frequent emptying. The Smith Crematory was tried at Hospital No. 3, Manila, but was a failure, not only was the odor almost unbearable in the closet building, but residents within a mile circle complained bitterly. Outside of Manila dry earth closets have proven satisfactory. Earth is often obtainable in small quantities only, but in those cases frequent cleansing has obviated that difficulty to a great extent. In Manila night soil is deposited at places designated by the board of health and at other stations is buried at a distance or thrown into streams or the sea.

This archipelago is one of the homes of foul water, the natives using the streams for drinking, washing of clothes and animals, bathing, and defecation. With very few exceptions no water should be drunk before sterilization. The conformation of the country makes it probable that artesian wells would be successful, which is to be earnestly hoped, as by any system of sterilization occasional accidents occur, while nature's methods are sure. A good artesian well is now furnishing water at San Fernando, Pampanga, and another at the cold-storage and refrigerating plant, Manila, supplies a good water, but not in great quantity.

Chemical sterilization of water has hardly been attempted, all purification methods depending upon heat applied in different ways. A great deal of distilled water is furnished by Medical Department ice plants and by distilling plants belonging to the Quartermaster's Department, much water is boiled, and a considerable amount obtained from Forbes-Waterhouse sterilizers. There is much difference of opinion as to the value of the last-named method of sterilization, and there can be no question that the first statements made as to the absolute safety of this process were premature, the operation of these sterilizers requiring intelligent supervision, without which simple boiling is preferable.

The greater number of water-borne diseases in soldiers are now contracted on active field service, when so much water is demanded by free sweating, induced by exertion, and the great thirst is generally assuaged with any obtainable water; nor is it easy to boil sufficient water; and water thus sterilized remains hot for so long a time that it is difficult to make men drink it, demanding the greatest watchfulness on the part of officers. In the young and inexperienced soldier there is too often found a spirit of bravado which prompts him to drink any water, with the idea that to take precautions denotes physical weakness.

The clothing supplied has generally been of good quality and fairly well adapted to the climate, although much of the khaki fades, and in consequence bodies of men look badly.

For field uniform the present campaign hat is the most satisfactory head gear yet devised. The light-weight flannel shirt is also excellent, but should be made of khaki color, both as leading to decreased visibility and because the lighter color would be cooler. Khaki trousers are also good, but should be made loose around the hips and tight at the ankles. The present shoes furnished by the Quartermaster's Department are of good quality, but another style of shoe is needed of the high hunting-shoe type with tongue sewed on both sides, so as to be practically waterproof. Into this shoe the trousers should be tucked, the tongue and lacing being adjusted over them. Such shoes would be much better than leggings, which on muddy roads do not protect the legs and feet. That these shoes are practically useful has been demonstrated many times, officers who have worn them being free from dhobie itch on the feet, while at the same time men wearing the present shoes and leggings were universally infected. The organism of dhobie itch is undoubtedly present in the mud, and in coming in contact with the almost unprotected feet of men is practically sure to set up the disease. The conditions of service is such that this shoe is required for cavalry as well as infantry. If drawers are provided, they should be loose and short, little more than trunks. The English do not use them in hot climates, and there is no uncleanness in dispensing with them when the outer clothing is washable. The blouse is purposely omitted from this uniform. For station use clothing is needed which by its color and light weight will minimize the effects of high temperature. The material for this might be white cotton, but the blue checked cotton which the Spaniards employed is rather better, in that it is nearly as cool and does not soil so readily. A cap of the present shape, with removable covers of the same material, is recommended. The present chambray shirt is good, and the present styles of blouse and trousers, but all should be made on the same model and not, as at present, with differences in the number of pockets, etc. The collar of the blouse would preferably be a low standing one fastened with two removable buttons, as are officers' blouses, sufficiently snug not to require a white collar; all buttons and buckles should be removable in order that the garment will not be stained by rush in washing. White canvas shoes would be an excellent foot gear.

The method of carrying ammunition in a belt around the waist is an injurious one, especially here, where so large a proportion of marching commands suffers from diarrheal diseases. The method adopted by so many soldiers of their own volition of wearing the belt over one shoulder is preferable.

The habits of the men may generally be considered as good, although long distance from home and family and national ties tends to encourage a certain recklessness in behavior and a loss of fear of consequences. The lack of rational amusement and the inability to give vent to the natural activity of young men in athletic pursuits also have a bad effect.

Except when engaged in actual campaigning the greater part of a soldier's duties are performed in the cooler morning and evening, leaving the middle of the day free, which is as it should be. The deadly monotony of unoccupied hours can only be realized by one who has passed a season in a small Filipino town. Some organizations are fortunate in having libraries of their own; a good deal of much appreciated literature has been supplied by a society in Manila devoted to that

An inspection made at 2 p. m. to-day, October 6, 1901, of the dining rooms, kitchens, and earth closets, shows that they are all swarming with flies. The screen doors and windows are badly fitted and broken, and one troop (C) has no window screens at all to the dining room and kitchen. The dry-earth closets are about 30 yards from the kitchens and dining rooms, and here flies are again in swarms. The majority of fecal deposits were not covered, or only partially so. The experience of the summer of 1898 in the different camps makes it plain that this is the greatest source of infection, for the conditions are analogous. It is recommended:

1. That the dining rooms and kitchens be properly screened at once and every precaution taken by company cooks and dining-room men to keep the flies out and away from the food.

2. That instead of using the dry-earth closet the troughs be filled with a solution of lime to the depth of 4 inches, and that the present urinal be done away with and the men made to pass their urine into the lime solution in the troughs.

3. That these troughs be emptied daily. It is further recommended that the odorless excavating tank wagon with detachable pump be obtained to facilitate the daily removal of trough contents.

The above recommendations in regard to the latrines are the best practicable that can be carried out at once, but should be used only during the time necessary for the Quartermaster's Department to place a well-constructed water-closet and sewer system in the post.

As part of the odorless extraction apparatus was missent and did not reach this post till some time in January, 1902, it was not till cold weather killed the flies that the disease stopped. The middle of December, 1901, the weather was quite cold for two or three days, averaging 18 degrees, and the last case of typhoid entered the hospital December 20, 1901.

From October 1 to December 20, 1901, there were treated 33 undoubted and well-marked cases of typhoid fever, with 5 deaths, a mortality of 15.1 per cent. This rather high mortality can only be accounted for by the fact that many of the cases came to sick call, recruit like, only after they had been sick a week or ten days. Two of the worst cases came in from a ten days' practice march. The following table shows the number of cases in each organization:

Troop A, Twelfth Cavalry .....	6
Troop B, Twelfth Cavalry .....	6
Troop C, Twelfth Cavalry .....	5
Troop F, Twelfth Cavalry .....	9
Twelfth Company, Coast Artillery .....	2
One hundred and twenty-fifth Company, Coast Artillery .....	2
Detachment Hospital Corps .....	1
Prisoners .....	2
<b>Total .....</b>	<b>33</b>

No case has occurred since December 20, 1901, up to the present time, March 24, 1902, with one exception, and he came to the post sick from a month's furlough; consequently not considered a case originating at Fort Clark.

Three of the fatal cases died of exhaustion, their systems not being able to hold out longer against the typhoid intoxication, notwithstanding great stimulation with whisky and strychnine. Two died of intestinal perforation and its consequences. One case developed orchitis of the right testicle during convalescence. The testicle suppurated and was enucleated. Three cases suffered with swollen lower extremities (phlebitis) during the latter part of the disease and convalescence. Epistaxis occurred in 8 cases during the disease. One case developed a lobar pneumonia during the height of the disease, but recovered from the pneumonia, and about ten days later passed through the critical stage of the typhoid fever and recovered. This case was one of the three of phlebitis mentioned above. The phlebitis of the left leg began during convalescence.

Purulent otitis media of both ears, with perforation, occurred in one case. This case was particularly severe in its infection. The patient came to the hospital at 10 o'clock in the morning. He said he did not know what was the matter, but that he felt so weak he could not get on his horse to drill. Temperature and pulse were normal, but the man had a distressed expression, and his hands were cold and blue. His tongue was coated white, but he had no pain in the abdomen. He was placed in bed, where he went to sleep almost at once. At 6 p. m. his temperature was 105° F., and at this time he complained of considerable pain in his chest and cough. This pain and cough were due to a slight bronchitis. He was given Dover's powder and phenacetine. The next two days quinine in large doses was given without any effect whatever on the temperature. The case was then consid-

ered one of typhoid fever and put on the cold-bath treatment. This did well till about the fifteenth day of the treatment, when it was found that he did not react well. His skin would stay cold and blue from one bath till the temperature indicated another, notwithstanding whisky was given after each bath. The baths were stopped and whisky and strychnine were given instead, and the amount of whisky and strychnine this patient took with greatest benefit, which was quite perceptible, was something astonishing. For ten days he took 30 cubic centimeters of brandy every two hours, night and day, with 2 milligrams of strychnine every three hours.

The majority of the cases on entering the hospital complained of pain in the chest and had a slight cough—a slight bronchitis. This is interesting, since several writers insist that the lungs are the seat of initial infection.

One case developed abdominal ascites after the patient had been to duty several weeks, and also showed albumen and hyaline and granular casts in his urine. Under proper treatment the albumen and casts disappeared. The ascites also disappeared, but the liver, however, was found hypertrophied.

One case gave marked symptoms of cholecystitis during the height of the disease.

It was noticed that those cases that had diarrhea did badly; in fact, two of them died, and, on the contrary, those that were more or less constipated did well.

Early in July, 1902, on account of the reported prevalence of typhoid fever at Camp Thomas, Ga., a board consisting of Maj. Jefferson R. Kean, surgeon, U. S. Army, and Contract Surgeon James Carroll, U. S. Army, was appointed to make a thorough sanitary inspection of the camp and submit a report to the Adjutant-General of the Army, through the Surgeon-General. Major Kean was directed also to make such suggestions and recommendations to the commanding officer of the camp and the medical officers on duty thereat as seemed to him in the best interests of the service to maintain the health of the troops and eradicate epidemic disease. Action was promptly taken on this order, as shown by the report of the board.

With a view to improving the sanitary conditions of this camp Major Kean made the following recommendations to the commanding officer:

1. That the screening of the mess rooms and kitchens to exclude flies be made complete and efficient. The construction of these buildings was so poor in this respect that they are at present large fly traps. Measures should also be taken to destroy the flies in them, as required by post orders.

2. There are six houses occupied by park employees in the immediate vicinity of the camp. These have all open and offensive privies, except one, which has none at all. A closed fly-proof privy of approved pattern should be constructed at each of these houses and they should be regularly inspected. As this is a measure for the protection of the health of the command, it seems that it might very properly be done by the Quartermaster's Department, and this would be the quickest and most satisfactory way of remedying a serious sanitary evil.

3. The sanitary conditions of the post exchange affect the entire command and should be perfect. Its present condition is far from satisfactory. It should be efficiently screened against flies; the kitchen and pantry being screened separately from the dining room. Flies now swarm there, and the standard of cleanliness is low.

4. In a permanent camp it is recognized by all sanitary authorities to be of the utmost importance to prevent in every way pollution of the soil. In spite of the admirable police of the camp it is inevitable that men will, during the night, urinate near the tents rather than walk a hundred yards to the sinks. The only way to prevent this is to provide urine tubs, which may be placed in the company streets at dark and removed at reveille. These may be conveniently made of half barrels, tarred inside, and should contain some antiseptic solution. This arrangement is common in the English service. Another reason for it is the fact that the urine in walking cases of typhoid and after convalescence often contains millions of typhoid germs.

5. The milk supply of the camp should be under medical supervision, only those dealers being licensed to sell who will comply with the rules recommended by the post surgeon.

6. As typhoid fever is prevalent in the village of Rossville, and its sanitary condition is bad, the men should be, as far as possible, kept from visiting it.

7. The command should be instructed that they may safely drink the water from the bored wells, having pumps, in the park, but the other waters should be avoided, and especially the unsterilized water piped from Chickamauga Creek. It is believed to be a very valuable sanitary precaution to wash the hands before eating. If in the opinion of the commanding officer it is deemed practicable to enforce this precaution it would be desirable to do so.

The camp surgeon, Maj. W. D. Crosby, and Dr. James Carroll, U. S. Army, concur in these recommendations.

Under date of August 6, 1902, Contract Surgeon James Carroll reported the result of an examination of the soil taken from the covered-up sinks of the encampment in Chickamauga Park in 1898.

I have the honor to submit the following report of the examination of eight specimens of soil taken from some of the sinks used by the troops encamped in Chickamauga Park during the summer of 1898, while typhoid fever was prevailing. The sites visited were those of the Ninth and Tenth Pennsylvania and Twelfth New York Infantry regiments.

The object of the examination was to determine whether the typhoid bacillus could be recovered, after the lapse of four years, from the earth with which the sinks had been filled. It was impossible to ascertain to what extent disinfectants had been used, and many of the sinks had been heavily covered with lime.

Samples were taken from a depth of only a few inches because it is said that the typhoid bacillus when buried deeply in the soil grows toward the surface, where it can obtain the largest supply of oxygen.

In making the cultivations the method used was that of Parietti, as follows: To a number of tubes containing 10 cubic centimeters of sterile bouillon there was added from 3 to 9 drops of a mixture of 5 parts of carbolic acid and 4 parts of hydrochloric acid in 100 of distilled water. Five inoculations were made from each sample, adding about 1 gram of the soil to each of five bouillon tubes containing 3, 5, 6, 7, and 9 drops of the acid solution respectively. A growth developed in all the tubes but two, and after forty-eight hours plate cultures were prepared. These were found to contain practically pure cultures of common saprophytic and putrefactive bacteria, mostly of the *B. subtilis* and *B. proteus* types. In no instance could the typhoid bacillus or the colon bacillus be obtained.

In July, 1902, 4 cases of typhoid fever were reported as under treatment in the general hospital, Presidio of San Francisco, Cal. An investigation into the history of these cases showed that the infection was not conveyed to these men while on the reservation. In one case the disease was probably incurred while the soldier was absent on pass. The three other cases were received from the transport *Logan*, the infection having probably been acquired at Nagasaki, Japan.

#### MALARIAL DISEASES.

In the Army as a whole during the calendar year there were reported 35,180 cases of malarial disease, with a death rate of only 0.59 per thousand of strength. The following shows the character of these diseases:

Intermittents: 29,498 cases, equivalent to 318.93 cases per thousand men, with no deaths and no discharge for disability.

Remittents: 4,615 cases, equivalent to 49.90 cases per thousand of strength, with 7 deaths, and no discharge for disability.

Pernicious fever: 73 cases, equivalent to 0.79 per thousand of strength, with 33 deaths, equivalent to 0.36 per thousand.

Malarial cachexia: 994 cases, equivalent to 10.75 per thousand men, with 14 deaths and 18 discharges for disability.

These records give a total of 35,180 cases, or 430.37 per thousand of strength.

At posts in the United States a great deal was done during the course of the year for the protection of the troops against bites of the *Anopheles*, but that this did not suffice to offset the malarial diseases brought home by men returned from the Philippines and Cuba may be seen by comparing the statistics<sup>a</sup> submitted above with the mean annual rates of the decade 1888-1897, during which period the strength of the Army, all of which was in garrison in the United States, was 27,117.

At the Pan-American Sanitary Congress held in the city of Habana, Cuba, February 15-20, 1902, a resolution was adopted recommending that in all countries suffering from malarial fever a campaign of education be instituted in order to popularize the recently acquired knowledge concerning the transmission of this fever; that for the purpose cards written in simple, clear language and illustrated with drawings of *Anopheles* mosquitoes be properly distributed among the people.

As compared with the mean admission rate of 113.33 for malarial fevers per thousand of strength for troops serving at posts in the United States, Capt. George M. Wells, assistant surgeon, U. S. Army, called attention to the high rate of 326 admissions per thousand at Fort Wadsworth, N. Y. The mean strength of the command was 445 men. The number of admissions for malarial fever varied from none in February to 46 in September, giving a total of 145 cases for the calendar year.

There was but one month in the year during which no case was admitted, while the period of greatest prevalence was from July to October.

This would appear to show that malaria is most prevalent at this post during the months when mosquitoes are most numerous, as the latter did not make their appearance in great numbers until the latter part of May or the 1st of June, but it would also show that a not inconsiderable number of cases occurred in midwinter, when the mosquitoes are supposed to be dead, or if not actually dead, in such a stupid condition that they would be harmless through inability to bite. This brings up the interesting question of when the cases admitted in winter were really infected with the plasmodium, and the still more important question of how long the parasites may retain their vitality in the blood without producing an outbreak in the form of a fever of some type or other. In this connection I would state that in most of these cases the blood was examined under the microscope and the presence of the plasmodium demonstrated beyond question, while in a limited number of cases there was some doubt as to whether the plasmodium was or was not present. Some of these latter cases, as well as others in which repeated examinations failed to disclose anything even resembling the malarial parasite, presented a typical clinical picture of malarial fever, and yielded promptly to the action of quinine in doses of 10 to 15 grains three times a day. That the parasite was present in each case I have no doubt, although I was not always able to demonstrate it either in the fresh or stained specimen. Out of a total of 373 cases of all kinds taken up on sick report during the entire year, 145 were malarial, making considerably more than one-third of all cases treated. But when the number of days lost in hospital is taken into consideration the same ratio does not hold, for out of a total of three thousand four hundred and three days lost from all causes only seven hundred and twenty were from malaria, making approximately one in five. Of the 145 cases of malaria actually treated in hospital, 58 were of the intermittent type, while 87 were remittent. This does not show the exact ratio that actually existed between the two types of fever, for there were a great many mild cases that were never taken up on the sick report, and of these the intermittent were much more numerous than the remittent. From the 58 cases of intermittent fever two hundred and eighteen days were lost, making an average duration of three and seventy-six one-hundredths days for each case, while the 87 remittent cases caused a loss of five hundred and two days, making an aver-

<sup>a</sup> Not printed.



done by myself, and I am sure of asepsis; the bichloride solution is omitted and the arm scrubbed only with alcohol after the soap.

When a number are to be vaccinated at one time a reliable Hospital Corps man does this preparation. His hands are prepared as for an abdominal section, and he wears freshly boiled rubber gloves when they are available. Two or more brushes are alternately used, and the one not in use is kept in boiling water on a coal-oil or other stove. The scrubber is careful not to "dip back" from dirty arms to sterile water; he also avoids catching hold of arm or otherwise contaminating his hands. The man to be vaccinated, after being scrubbed and cautioned to keep his hands off the area, passes to the alcohol or bichloride solution and sterile-water stand, where sterile hands scrub the part with a piece of sterile gauze wet with the solution. One piece of gauze is used for each man. The man is now ready for vaccination. A tube of glycerinated virus is cut with sterile scissors and the contents distributed at four points about 2 cm. apart. The sterile needle of a hypodermic syringe is then inserted through each drop separately, into the skin—not underneath—and pushed along nearly parallel with the surface until the hole at the end of the needle is well out of sight. After each case is vaccinated the syringe, which has previously been filled with sterile water, is emptied of a few drops to clean the needle and placed with the needle suspended in boiling water. A retort stand, ring, clip, and alcohol lamp are used for this purpose, and when these are not available a tin can with a hole in the top small enough to prevent the guards of the syringe from passing through is used. Two or more syringes are used to avoid wasting time. Sterilization by passing the needle through the flame has been recommended. The sterilization is efficient, but the needle will not stand it. The temper is taken out of the needle and it bends. As soon as each case is vaccinated an assistant applies a sterile pad of several thicknesses of gauze and keeps it in place over the wound by two strips of adhesive plaster around the arm over the gauze, above and below, not directly over wound.

The man is instructed to keep this dressing dry and in place, and to report at once if the dressing gets wet or becomes displaced. He reports in five days for inspection of the arm. Recruits are faced to the rear in line, as in this formation they do not see what is being done to other men and are not so apt to faint as when they see what is going on.

The time consumed by this method is insignificant, and much time and labor is saved by the few redressings required. I believe field service is no excuse for failure to apply aseptic technic to this operation. The Seventeenth Infantry was vaccinated at Tarlac, P. I., November 17, 1899, during active operations and soon after we arrived, by two acting assistant surgeons and myself in this cleanly manner.

I have record of 320 cases vaccinated since August, 1899, and histories of 3 cases of vaccinia during that time. One of these cases lost one day of duty, 1 three, and 1 five; total of nine days lost. The hypodermic method seems to me to possess certain advantages over the abrasion method, but I believe that there would be little trouble after any method if properly done. Vaccination should be considered a surgical operation, not a medical procedure to be done by people not familiar with aseptic technic.

#### INFECTIOUS DISEASES ON TRANSPORTS.

Although the infections of scarlet fever, mumps, and measles were quite prevalent and that of smallpox not infrequent in the United States during the year, it is gratifying to record that few of the transports carrying troops from San Francisco, Cal., to Manila became infected. Great care was taken in the examination of troops before embarkation, but nevertheless cases of disease were occasionally embarked. The transport *Kilpatrick* was the most unfortunate of these vessels. On her voyage from San Francisco, Cal., to Manila, April 5 to May 12, 1901, she had 3 cases of variola, 32 of mumps, and 31 of measles, and on her corresponding voyage January 16 to February 17, 1902, she had 7 cases of mumps and 40 of measles. On the transport *Meade*, which sailed from San Francisco, Cal., March 2, 1902, there was discovered on the following morning a case of scarlet fever, with exudation in the throat, and a case of smallpox fully developed. The vessel put back into port and went into quarantine for disinfection. In the case of the *Kilpatrick* the chief surgeon of the

Department of California reported that in his opinion it was practically impossible to prevent the occurrence of minor eruptive diseases among the recruits en route to the Philippines. All reasonable precautions were taken and the system of inspection prior to embarkation was rigid. In addition to those mentioned, the *Sheridan* arrived at Manila, P. I., January 26, 1902, with 23 cases of measles; the *Thomas* March 3, with 48 cases; the *Grant* March 12, with 7 cases; the *Warren* April 2, with 31 cases of measles and 9 cases of mumps; the *Hancock* April 12, with 2 cases of mumps. On the *Sheridan*, which arrived May 1, 1 case of smallpox occurred before reaching Honolulu, H. I., and was transferred to the quarantine station at that port. There was no spread of the infection from this case.

#### INFLUENZA.

Of this disease 2,608 cases were reported from the Army, equivalent to 28.20 cases per thousand of strength. Only 1 of these cases was fatal. Most of the cases, total number 2,295, equaling 86.56 per thousand of the strength, occurred in the United States.

#### DENGUE.

Dengue, on the contrary, was almost absent from the United States, Cuba, and Porto Rico, but quite prevalent in the Philippines, giving 31.67 cases per thousand of strength in the division.

#### DIPHTHERIA.

This disease was not prevalent in the Army during the year. The total number of cases was 27, 2 of which were fatal. Sixteen of the cases occurred in the United States, and 11, with the 2 fatal cases, in the Philippines. No case occurred in Cuba or Porto Rico.

#### YELLOW FEVER.

In the Army as a whole only 14 cases, 1 of which was fatal, were reported during the year. All of these occurred in Cuba prior to the precautionary measures taken in consonance with the important discovery made by Maj. Walter Reed, surgeon, U. S. Army, and his associates, concerning the propagation of the disease by the bites of infected mosquitoes. Since prophylactic measures based on Major Reed's discovery have been instituted no case of this dread disease has been reported from the army in Cuba, and the reports from the civilian population have been equally satisfactory. The importance of Major Reed's work can not be overestimated. He has shown how the human race may be freed from the scourge of yellow fever as Jenner showed how it might be freed from the deadly ravages of smallpox.

At the Pan-American Sanitary Congress held in the city of Habana, Cuba, February 15 to 20, 1902, the Army Medical Department was represented by Lieut. Col. Valery Havard, deputy surgeon-general, Maj. William C. Gorgas, and Maj. J. R. Kean, surgeons, U. S. Army.

The American republics represented by duly accredited delegates were the United States (delegates from the Army and the Marine-Hospital Service), Cuba, Mexico, Argentina, Colombia, Costa Rica,

Santo Domingo, Ecuador, Nicaragua, Paraguay, and Uruguay. Besides the official delegates, the congress was also attended by many of the best representatives of the profession in Cuba, as well as by several architects and sanitary engineers.

The papers read and discussed during the sessions covered a large field of interesting and fruitful subjects and testified to the earnestness and thoroughness with which, in spite of many difficulties, the work of the congress was organized and carried out by the executive committee.

The most interesting and important session was doubtless that of February 19, devoted to the history of yellow fever and especially the recent discoveries concerning the nature and mode of transmission of the disease. It soon appeared that the experiments carried out by Major Reed's commission and subsequently by other distinguished physicians in the city of Habana, were known to all the delegates and that the inevitable conclusions would be accepted. Colonel Havard, after his paper on the transmission and prevention of yellow fever had been read and discussed, presented in open session, so that all present—delegates and others—might vote upon it, a resolution on the mosquito as causative agent of yellow fever. All voted in the affirmative with only two exceptions—two negative votes cast by physicians (not delegates) of obscure standing in the community. The resolution was as follows:

Accepting as an established fact that the mosquito (*Stegomyia fasciata*) so far as known is the only agent capable of transmitting yellow fever, and that consequently the prophylaxis should consist in the destruction so far as possible of the mosquitoes of that species and the use of the most effective means to prevent their access to yellow-fever patients.

In the evening of that day the delegates met to consider the official resolutions prepared by an especial committee. The resolution just cited having been adopted without a dissenting voice, a motion was made to add to it a clause embodying the practical deduction naturally flowing from it, namely, that quarantine regulations in their application to yellow-fever cases should be based upon the doctrine which it enunciates. This motion was combated by the delegates from the United States Marine-Hospital Service as well as by Dr. Porter, secretary of the Florida board of health, and lost, a result as illogical as it was unexpected.

#### TYPHOID FEVER.

Of this disease 594 cases were reported during the year, with 78 deaths and 5 discharges for disability. The cases were equivalent to 6.42 and the deaths to 0.84 per thousand of the strength of the Army. The admission rate for this disease in the United States, 9.43, was higher than in the Philippines, where it was 5.29 per thousand men, and in Cuba, where it was only 3.21. In Porto Rico it was 10.41. During the decade 1890-1899 the mean annual rates of admission and death per thousand of strength were respectively 20.49 and 2.29, but these rates are excessively high, as they include the great prevalence of the disease in the camps of the Spanish-American war in 1898. Going back to the decade 1888-1897 we find the mean annual admission rate 4.95 and the death rate 0.55 per thousand of strength. During the past year, therefore, the disease was considerably more prevalent than during the years of peace prior to 1898.

It is probable that the records give an underestimate of the number of cases of typhoid, as 1,805 cases of fever, equivalent to 19.52 cases per thousand men, were reported as undetermined. None of these undetermined cases proved fatal. In the Philippines the rate of admission was 25.38 per thousand men, and in the United States 8.22, the higher rate in the Pacific islands being probably due to a want of facilities for making use of the Widal reaction.

An epidemic of typhoid fever occurred at Fort Clark, Tex., October 1 to December 20, 1901, and was reported by Capt. T. S. Bratton, assistant surgeon, U. S. Army. On reporting for duty at this post October 1, 1901, Captain Bratton found on sick report 7 cases in various stages of a continued fever, which had been recorded as continued malarial fever. On October 2 three other cases entered the hospital, and next day a fourth case. These cases he regarded from the clinical records as all cases of typhoid fever. In the absence of means to detect the plasmodium, the administration of quinine in large doses was relied on to differentiate. All the suspected cases gave negative results with large doses, but gave positive reactions with the Widal test when samples of blood were sent to the Army Medical Museum for examination. Dr. Bratton continues:

It was reported, and the register confirmed it, that this epidemic of continued fever has existed all summer with more or less intensity, which gradually increased as the fall advanced.

On looking for a cause it was found, first, that the water supply was excellent, being obtained from a large spring 50 feet in diameter and 17 feet deep in the center and supplying at least 8,000 gallons per minute. The intake pipe was in the center of the spring and 10 feet under the surface. It would be impossible to contaminate this spring for any length of time on account of its large flow. However, the troops were afraid of it and were using distilled water from the ice plant for drinking purposes.

Next the sinks were examined. They consisted of earth closets, the contents being removed nightly. Some deposits were covered, many not at all, and others imperfectly so. The urinal consisted of a trough that ran into a tub without cover. This tub was also emptied every night.

The usual number of flies were found around these sinks, but it was in the kitchens and dining rooms of the barracks that they actually swarmed over everything. The kitchens and dining rooms were furnished with screens, but these were badly fitted and full of holes in many places; in fact, worn out.

No case of fever had occurred among the officers nor their servants, and no case, so far as I could learn, had occurred in the town of Brackettsville, though the people were using the water obtained from the stream about a hundred yards below the spring, this being hauled to them in barrels. It was believed that the disease was originally brought to the post by recruits, as part of the Twelfth Cavalry was organized here during the summer. With these facts at hand, a special sanitary report was sent to the adjutant. \* \* \*

An examination of the spring shows that the fence inclosing it is inadequate and in several places broken down, thus allowing cattle and other animals to enter the inclosure and defile the watershed, if not the spring. The margins are overgrown with water lilies, which in themselves are not harmful, except that they allow trash and detritus to collect on the surface of the water and prevent proper drainage at the outlet, where they are especially luxuriant. It is recommended:

1. That the fence be extended so as to exclude cattle from all portions of the spring and that the broken portions be repaired.

2. That the watershed be thoroughly and frequently cleaned, and that neither man nor beast be allowed within the inclosed shed.

3. That the lilies around the margin, and especially at the outlet, be cleaned away so as to allow free drainage of the spring water and the surface accumulations.

4. That the tanks in the water tower be cleaned at frequent intervals. With the above procedures carried out, I can not believe that distilled water is either necessary or advisable at this post. The spring is a large one and of great volume, and with the infrequent rain prevailing here should not become contaminated by surface drainage. Theoretically distilled water is quite pure, but practically much distilled water is quite impure when it reaches the consumer.

An inspection made at 2 p. m. to-day, October 6, 1901, of the dining rooms, kitchens, and earth closets, shows that they are all swarming with flies. The screen doors and windows are badly fitted and broken, and one troop (C) has no window screens at all to the dining room and kitchen. The dry-earth closets are about 30 yards from the kitchens and dining rooms, and here flies are again in swarms. The majority of fecal deposits were not covered, or only partially so. The experience of the summer of 1898 in the different camps makes it plain that this is the greatest source of infection, for the conditions are analogous. It is recommended:

1. That the dining rooms and kitchens be properly screened at once and every precaution taken by company cooks and dining-room men to keep the flies out and away from the food.

2. That instead of using the dry-earth closet the troughs be filled with a solution of lime to the depth of 4 inches, and that the present urinal be done away with and the men made to pass their urine into the lime solution in the troughs.

3. That these troughs be emptied daily. It is further recommended that the odorless excavating tank wagon with detachable pump be obtained to facilitate the daily removal of trough contents.

The above recommendations in regard to the latrines are the best practicable that can be carried out at once, but should be used only during the time necessary for the Quartermaster's Department to place a well-constructed water-closet and sewer system in the post.

As part of the odorless extraction apparatus was missent and did not reach this post till some time in January, 1902, it was not till cold weather killed the flies that the disease stopped. The middle of December, 1901, the weather was quite cold for two or three days, averaging 18 degrees, and the last case of typhoid entered the hospital December 20, 1901.

From October 1 to December 20, 1901, there were treated 33 undoubted and well-marked cases of typhoid fever, with 5 deaths, a mortality of 15.1 per cent. This rather high mortality can only be accounted for by the fact that many of the cases came to sick call, recruit like, only after they had been sick a week or ten days. Two of the worst cases came in from a ten days' practice march. The following table shows the number of cases in each organization:

Troop A, Twelfth Cavalry .....	6
Troop B, Twelfth Cavalry .....	6
Troop C, Twelfth Cavalry .....	5
Troop F, Twelfth Cavalry .....	9
Twelfth Company, Coast Artillery .....	2
One hundred and twenty-fifth Company, Coast Artillery.....	2
Detachment Hospital Corps.....	1
Prisoners .....	2
<b>Total .....</b>	<b>33</b>

No case has occurred since December 20, 1901, up to the present time, March 24, 1902, with one exception, and he came to the post sick from a month's furlough; consequently not considered a case originating at Fort Clark.

Three of the fatal cases died of exhaustion, their systems not being able to hold out longer against the typhoid intoxication, notwithstanding great stimulation with whisky and strychnine. Two died of intestinal perforation and its consequences. One case developed orchitis of the right testicle during convalescence. The testicle suppurated and was enucleated. Three cases suffered with swollen lower extremities (phlebitis) during the latter part of the disease and convalescence. Epistaxis occurred in 8 cases during the disease. One case developed a lobar pneumonia during the height of the disease, but recovered from the pneumonia, and about ten days later passed through the critical stage of the typhoid fever and recovered. This case was one of the three of phlebitis mentioned above. The phlebitis of the left leg began during convalescence.

Purulent otitis media of both ears, with perforation, occurred in one case. This case was particularly severe in its infection. The patient came to the hospital at 10 o'clock in the morning. He said he did not know what was the matter, but that he felt so weak he could not get on his horse to drill. Temperature and pulse were normal, but the man had a distressed expression, and his hands were cold and blue. His tongue was coated white, but he had no pain in the abdomen. He was placed in bed, where he went to sleep almost at once. At 6 p. m. his temperature was 105° F., and at this time he complained of considerable pain in his chest and cough. This pain and cough were due to a slight bronchitis. He was given Dover's powder and phenacetine. The next two days quinine in large doses was given without any effect whatever on the temperature. The case was then consid-

ered one of typhoid fever and put on the cold-bath treatment. This did well till about the fifteenth day of the treatment, when it was found that he did not react well. His skin would stay cold and blue from one bath till the temperature indicated another, notwithstanding whisky was given after each bath. The baths were stopped and whisky and strychnine were given instead, and the amount of whisky and strychnine this patient took with greatest benefit, which was quite perceptible, was something astonishing. For ten days he took 30 cubic centimeters of brandy every two hours, night and day, with 2 milligrams of strychnine every three hours.

The majority of the cases on entering the hospital complained of pain in the chest and had a slight cough—a slight bronchitis. This is interesting, since several writers insist that the lungs are the seat of initial infection.

One case developed abdominal ascites after the patient had been to duty several weeks, and also showed albumen and hyaline and granular casts in his urine. Under proper treatment the albumen and casts disappeared. The ascites also disappeared, but the liver, however, was found hypertrophied.

One case gave marked symptoms of cholecystitis during the height of the disease.

It was noticed that those cases that had diarrhea did badly; in fact, two of them died, and, on the contrary, those that were more or less constipated did well.

Early in July, 1902, on account of the reported prevalence of typhoid fever at Camp Thomas, Ga., a board consisting of Maj. Jefferson R. Kean, surgeon, U. S. Army, and Contract Surgeon James Carroll, U. S. Army, was appointed to make a thorough sanitary inspection of the camp and submit a report to the Adjutant-General of the Army, through the Surgeon-General. Major Kean was directed also to make such suggestions and recommendations to the commanding officer of the camp and the medical officers on duty thereat as seemed to him in the best interests of the service to maintain the health of the troops and eradicate epidemic disease. Action was promptly taken on this order, as shown by the report of the board.

With a view to improving the sanitary conditions of this camp Major Kean made the following recommendations to the commanding officer:

1. That the screening of the mess rooms and kitchens to exclude flies be made complete and efficient. The construction of these buildings was so poor in this respect that they are at present large fly traps. Measures should also be taken to destroy the flies in them, as required by post orders.

2. There are six houses occupied by park employees in the immediate vicinity of the camp. These have all open and offensive privies, except one, which has none at all. A closed fly-proof privy of approved pattern should be constructed at each of these houses and they should be regularly inspected. As this is a measure for the protection of the health of the command, it seems that it might very properly be done by the Quartermaster's Department, and this would be the quickest and most satisfactory way of remedying a serious sanitary evil.

3. The sanitary conditions of the post exchange affect the entire command and should be perfect. Its present condition is far from satisfactory. It should be efficiently screened against flies; the kitchen and pantry being screened separately from the dining room. Flies now swarm there, and the standard of cleanliness is low.

4. In a permanent camp it is recognized by all sanitary authorities to be of the utmost importance to prevent in every way pollution of the soil. In spite of the admirable police of the camp it is inevitable that men will, during the night, urinate near the tents rather than walk a hundred yards to the sinks. The only way to prevent this is to provide urine tubs, which may be placed in the company streets at dark and removed at reveille. These may be conveniently made of half barrels, tarred inside, and should contain some antiseptic solution. This arrangement is common in the English service. Another reason for it is the fact that the urine in walking cases of typhoid and after convalescence often contains millions of typhoid germs.

5. The milk supply of the camp should be under medical supervision, only those dealers being licensed to sell who will comply with the rules recommended by the post surgeon.

6. As typhoid fever is prevalent in the village of Rossville, and its sanitary condition is bad, the men should be, as far as possible, kept from visiting it.

7. The command should be instructed that they may safely drink the water from the bored wells, having pumps, in the park, but the other waters should be avoided, and especially the unsterilized water piped from Chickamauga Creek. It is believed to be a very valuable sanitary precaution to wash the hands before eating. If in the opinion of the commanding officer it is deemed practicable to enforce this precaution it would be desirable to do so.

The camp surgeon, Maj. W. D. Crosby, and Dr. James Carroll, U. S. Army, concur in these recommendations.

Under date of August 6, 1902, Contract Surgeon James Carroll reported the result of an examination of the soil taken from the covered-up sinks of the encampment in Chickamauga Park in 1898.

I have the honor to submit the following report of the examination of eight specimens of soil taken from some of the sinks used by the troops encamped in Chickamauga Park during the summer of 1898, while typhoid fever was prevailing. The sites visited were those of the Ninth and Tenth Pennsylvania and Twelfth New York Infantry regiments.

The object of the examination was to determine whether the typhoid bacillus could be recovered, after the lapse of four years, from the earth with which the sinks had been filled. It was impossible to ascertain to what extent disinfectants had been used, and many of the sinks had been heavily covered with lime.

Samples were taken from a depth of only a few inches because it is said that the typhoid bacillus when buried deeply in the soil grows toward the surface, where it can obtain the largest supply of oxygen.

In making the cultivations the method used was that of Parietti, as follows: To a number of tubes containing 10 cubic centimeters of sterile bouillon there was added from 3 to 9 drops of a mixture of 5 parts of carbolic acid and 4 parts of hydrochloric acid in 100 of distilled water. Five inoculations were made from each sample, adding about 1 gram of the soil to each of five bouillon tubes containing 3, 5, 6, 7, and 9 drops of the acid solution respectively. A growth developed in all the tubes but two, and after forty-eight hours plate cultures were prepared. These were found to contain practically pure cultures of common saprophytic and putrefactive bacteria, mostly of the *B. subtilis* and *B. proteus* types. In no instance could the typhoid bacillus or the colon bacillus be obtained.

In July, 1902, 4 cases of typhoid fever were reported as under treatment in the general hospital, Presidio of San Francisco, Cal. An investigation into the history of these cases showed that the infection was not conveyed to these men while on the reservation. In one case the disease was probably incurred while the soldier was absent on pass. The three other cases were received from the transport *Logan*, the infection having probably been acquired at Nagasaki, Japan.

#### MALARIAL DISEASES.

In the Army as a whole during the calendar year there were reported 35,180 cases of malarial disease, with a death rate of only 0.59 per thousand of strength. The following shows the character of these diseases:

Intermittents: 29,498 cases, equivalent to 318.93 cases per thousand men, with no deaths and no discharge for disability.

Remittents: 4,615 cases, equivalent to 49.90 cases per thousand of strength, with 7 deaths, and no discharge for disability.

Pernicious fever: 73 cases, equivalent to 0.79 per thousand of strength, with 33 deaths, equivalent to 0.36 per thousand.

Malarial cachexia: 994 cases, equivalent to 10.75 per thousand men, with 14 deaths and 18 discharges for disability.

These records give a total of 35,180 cases, or 430.37 per thousand of strength.

At posts in the United States a great deal was done during the course of the year for the protection of the troops against bites of the *Anopheles*, but that this did not suffice to offset the malarial diseases brought home by men returned from the Philippines and Cuba may be seen by comparing the statistics<sup>a</sup> submitted above with the mean annual rates of the decade 1888-1897, during which period the strength of the Army, all of which was in garrison in the United States, was 27,117.

At the Pan-American Sanitary Congress held in the city of Habana, Cuba, February 15-20, 1902, a resolution was adopted recommending that in all countries suffering from malarial fever a campaign of education be instituted in order to popularize the recently acquired knowledge concerning the transmission of this fever; that for the purpose cards written in simple, clear language and illustrated with drawings of *Anopheles* mosquitoes be properly distributed among the people.

As compared with the mean admission rate of 113.33 for malarial fevers per thousand of strength for troops serving at posts in the United States, Capt. George M. Wells, assistant surgeon, U. S. Army, called attention to the high rate of 326 admissions per thousand at Fort Wadsworth, N. Y. The mean strength of the command was 445 men. The number of admissions for malarial fever varied from none in February to 46 in September, giving a total of 145 cases for the calendar year.

There was but one month in the year during which no case was admitted, while the period of greatest prevalence was from July to October.

This would appear to show that malaria is most prevalent at this post during the months when mosquitoes are most numerous, as the latter did not make their appearance in great numbers until the latter part of May or the 1st of June, but it would also show that a not inconsiderable number of cases occurred in midwinter, when the mosquitoes are supposed to be dead, or if not actually dead, in such a stupid condition that they would be harmless through inability to bite. This brings up the interesting question of when the cases admitted in winter were really infected with the plasmodium, and the still more important question of how long the parasites may retain their vitality in the blood without producing an outbreak in the form of a fever of some type or other. In this connection I would state that in most of these cases the blood was examined under the microscope and the presence of the plasmodium demonstrated beyond question, while in a limited number of cases there was some doubt as to whether the plasmodium was or was not present. Some of these latter cases, as well as others in which repeated examinations failed to disclose anything even resembling the malarial parasite, presented a typical clinical picture of malarial fever, and yielded promptly to the action of quinine in doses of 10 to 15 grains three times a day. That the parasite was present in each case I have no doubt, although I was not always able to demonstrate it either in the fresh or stained specimen. Out of a total of 373 cases of all kinds taken up on sick report during the entire year, 145 were malarial, making considerably more than one-third of all cases treated. But when the number of days lost in hospital is taken into consideration the same ratio does not hold, for out of a total of three thousand four hundred and three days lost from all causes only seven hundred and twenty were from malaria, making approximately one in five. Of the 145 cases of malaria actually treated in hospital, 58 were of the intermittent type, while 87 were remittent. This does not show the exact ratio that actually existed between the two types of fever, for there were a great many mild cases that were never taken up on the sick report, and of these the intermittent were much more numerous than the remittent. From the 58 cases of intermittent fever two hundred and eighteen days were lost, making an average duration of three and seventy-six one-hundredths days for each case, while the 87 remittent cases caused a loss of five hundred and two days, making an aver-

<sup>a</sup> Not printed.



age duration of five and seventy-seven one-hundredths days for each case, or two days more than the intermittent cases. The average duration of all malarial cases was four and ninety-seven one hundredths days. Of the 145 cases of malaria, 85 were from men admitted but once, 19 from men admitted twice, 4 from men admitted three times, and 2 from men admitted four times, making a total of 110 men that were treated in hospital during the year for this affection. Two hundred and twenty-eight cases, admitted for all causes except malaria, caused a loss of two thousand six hundred and eighty-three days, making an average of eleven and thirty-three one-hundredths days for each case. Most of these cases were short cases, but there were a few, especially venereal cases, that lasted a long time, one having spent no less than one hundred and fifty days in hospital, while some others lost as much as two to three months. The total disability of the command from all causes amounted to a trifle over 2 per cent of the mean strength, while the disability from all causes, exclusive of malaria, amounted to 1.6 per cent of the mean strength.

*Latent and masked malaria.*—One of the most important results arrived at from the examination of the blood for the malarial parasite by Contract Surgeon Charles F. Craig, U. S. Army, in the general hospital, Presidio of San Francisco, Cal., has been the great number of cases of latent and masked malarial infections discovered in soldiers returned from the Philippines. Although the fact is well known that malarial infections may remain latent for a long period in some instances, the percentage of cases exhibiting this latency, so far as reported, has not been as large as the results obtained at this hospital seem to show. Of the 1,082 cases in which malarial parasites were demonstrated in the blood, 219 were cases of masked or latent malaria. Thus of the 1,082 cases, 20 per cent were of this class of infections.

In 20 cases diagnosed as chronic diarrhea malarial parasites were demonstrated, and in all these cases the infection was latent. Symptoms of diarrhea were present in all, but there was no rise in temperature and no symptoms which could be interpreted as being malarial in character. Treatment by quinine in these cases quickly caused the disappearance of the parasite from the blood, and, as a rule, resulted in the general betterment of the patient's condition, so that, as the cases have to be classed as latent on account of the absence of symptoms, the improvement in the patient indicates that the malarial infection has some influence in the progress of the diarrhea.

Sixteen cases diagnosed as pulmonary tuberculosis showed the presence of malarial parasites, 10 cases being due to infection with the estivo-autumnal parasite, 4 with the benign tertian. From a study of the clinical histories and temperature charts in these cases, the infection in every case was masked by symptoms which suggested pulmonary disease. Perhaps in no class of cases is the diagnosis of pulmonary tuberculosis made so often as in cases of malaria showing quotidian elevations of temperature. Such cases are often accompanied by a cough, great emaciation, profuse perspiration, and present the picture of pulmonary tuberculosis.

This is especially true of cases originating in the Tropics, the emaciation in these cases being more extreme and the pulmonary symptoms more apparent than in cases originating in the Temperate Zone. In all the cases diagnosed as pulmonary tuberculosis the parasites were present in considerable numbers, and treatment by quinine showed in a few days that the infection was purely malarial. The examination of the sputum in these cases for the tubercle bacillus always resulted negatively.

From the brief analysis of these cases of latent fever it will be seen how important an examination of the blood is in all cases of dis-

ease originating in the Tropics or in localities which are known to be malarious. It is an undoubted fact that a malarial infection complicating any disease process invariably injures the patient's chances of recovery, and its elimination, as proven by numerous cases observed at the general hospital, Presidio of San Francisco, Cal., greatly facilitates recovery. Not only is this so, but cases have been observed in which the discovery of the malarial infection undoubtedly saved the patient's life. The discovery of the cases of estivo-autumnal malaria is especially important, as it is this form of the disease that may become at any time pernicious and may cause death within a few hours.

CONSUMPTION.

Four hundred and fifty-two cases were reported from the Army during the year, equivalent to an admission rate of 4.89 per thousand of strength. The rate of discharge was 2.16, and of death 1.03. The rates in the United States were: Admission, 4.76; discharge, 3.06, and death, 0.64. In the Philippines: Admission, 4.94; discharge, 1.75, and death, 1.26. In Cuba: Admission, 4.91; discharge, 2.27, and death, 0.57. In Porto Rico: Admission, 4.34; discharge, 2.60, and no death.

As the mean annual admission rate for the decade 1888-1897 was only 2.72 per thousand of strength, a circular was issued from this office February 24, 1902, inviting the attention of medical officers to the increasing prevalence of pulmonary consumption, and enjoining them to see that all apartments which have been occupied by cases of tuberculosis are thoroughly disinfected.

No case of tuberculosis should be treated in quarters; and in the case of officers or enlisted men, as soon as positive diagnosis is made, recommendation should be made for transfer to the United States general hospital, Fort Bayard, N. Mex. In all demonstrated or suspected cases the sputa should be promptly destroyed or disinfected.

At the Pan-American Sanitary Congress held in Havana, Cuba, in February, 1902, a resolution was unanimously adopted recommending the establishment of antituberculosis leagues, similar to those already existing in several American Republics and the island of Cuba, in the conviction that international collective efforts will more surely result in a marked and permanent decrease of the disease.

*The United States general hospital, Fort Bayard, N. Mex.*—During the year 439 cases were under treatment at this hospital.

From the opening of the hospital, October 3, 1899, to June 30, 1902, 686 cases have been admitted, with results as follows:

Discharged .....	431
Died (27 in less than one month).....	<sup>a</sup> 105
Remaining June 30, 1902 .....	150
<b>Total .....</b>	<b>686</b>

*Results in those discharged.*

	Average residence.		Number.	Percent.
	Mos.	Days.		
Clinically cured.....	8	24	36	6.7
Convalescent.....	6	5	57	10.6
Improved .....	5	28	214	39.9
Unimproved (18 discharged in less than one month).....			124	23.1

<sup>a</sup> Or 19.7 per cent.

*Results in the three stages of the disease.*

Stage.	Clinically cured.	Convalescent.	Improved.	Unimproved.	Died.	Total.
First .....	27	38	101	18	1	185
Second .....	8	12	67	38	10	135
Third .....	1	7	46	68	94	216
Total .....	36	57	214	124	105	536

The death in the first stage was due to tuberculous appendicitis. Of the 10 deaths in the second stage, 5 were from laryngeal or intestinal tuberculosis, 3 from empyema, 1 from rupture of an aortic aneurism, and 1 from acute tuberculous pneumonia.

While ordinarily sanatoria for the treatment of pulmonary tuberculosis admit only about 25 per cent of cases examined as being suitable for admission, patients are sent to the Fort Bayard hospital regardless of the extent of their lesion or their desire to come. They are not selected for treatment in a high altitude, and perhaps a few would do better at a lower elevation. Many do not realize the gravity of their affection and the importance of remaining after discharge from the service until clinically cured. Sixty-two have returned after their discharge with their pulmonary lesion much advanced and their general condition much worse.

Nearly 80 per cent of the patients come from the Tropics, and in many of these, owing to the enervating effects of the tropical climate, the disease has made rapid progress before admission.

The following is a table of comparative weights on discharge of those who have improved under treatment:

	Discharged.	Gained.	Average gain.	Lost.	Average loss.	No change.
			<i>Pounds.</i>		<i>Pounds.</i>	
Improved .....	214	160	10.1	40	5.8	14
Convalescent .....	57	51	12.6	4	5.0	2
Clinically cured .....	36	30	15.5	6	5.6	.....

The three largest gains were 76, 58, and 45 pounds.

Maj. D. M. Appel, surgeon, U. S. Army, commanding the hospital, states that the longer he observes the effects of treatment in a high altitude the more he is convinced that a larger variety of cases are amenable to its beneficial influence than is commonly believed. Cases with extensive excavation in both lungs, and in which pyrexia continued for several months after admission, have finally improved to such a degree that ultimate recovery is probable, nor can emaciation, hemoptysis, or old age be considered contraindications.

The following report by Contract Surg. J. J. Curry, U. S. Army, on the effects of altitude on the blood is submitted as of interest. It is dated July 22, 1902.

The results of my observations to date on the nature of the changes in the blood of both normal individuals and of those suffering from pulmonary tuberculosis are shown in the following tables. The valuable blood counts at sea level were made through the courtesy of Col. A. C. Girard, assistant surgeon-general, U. S. Army, formerly commanding the general hospital at the Presidio of San Francisco, Cal., by Contract Surg. C. F. Craig, U. S. Army, pathologist of that hospital.

The following report, dated November 14, 1901, on consumption in

France, forwarded by John C. Covert, United States consul at Lyons, was received from the State Department:

At a former session of the French Parliament, a commission consisting of 32 members was appointed to investigate the subject of pulmonary tuberculosis, its ravages in France, the causes of prevalence, and the progress that has been made toward its cure. The report of this commission, which has just appeared in the Journal Official, treats the subject very elaborately, covering 25 quarto pages of solid minion. I translate in part and condense from it.

Mr. Amordu, the author of the report, says that 150,000 people die of consumption in France every year. It is among the young, adults, people from 30 to 45 years of age, in the prime of life, who seem to be the special victims of this scourge. Under such circumstances consumption can not be regarded as merely one of the incidents of life; it is a dreadful enemy, which is constantly extending its ravages and daily gaining ground, with no opposition to its contagious action. It can be said that in regard to France, where population is almost at a standstill, it is more than a menace to individuals; it constitutes a real national peril.

## CAN BE CURED.

"If tuberculosis is a disease that is widespread and contagious, it is also a disease that can be avoided and that can be cured."

"No one now questions the truth of this proposition, and it is such fundamental truths that inspire me to set forth the ravages caused by tuberculosis, to make known the means by which it is propagated, and to indicate in a general way the methods to extirpate it."

## IN AUSTRIA AND GERMANY.

Tuberculosis has its victims to-day in all countries and in all climates. Professor Leyden, in his lecture on September 7, 1894, at the Congress of Budapest, established the annual number of deaths in Germany from consumption at 170,000, 4,500 of which are charged to the single city of Berlin. He concluded that the aggregate deaths in the German Empire were from 1,000,000 to 1,300,000.

Kuty estimates the deaths from consumption in Austria at 25 per every 10,000 inhabitants. In Vienna, where this disease is called the Vienna malady ("Morbus Viennensis") the average annual deaths from consumption during the five years from 1889 to 1893 was 8,356.2. For every 1,000 deaths 232 were of consumption. For every 100,000 inhabitants 540 die of consumption. In Hungary the number of consumptives reaches over 400,000. In Budapest, in a population of 492,237, during a period of five years statistics report 3,179 deaths per year from consumption.

In twelve cities in Italy, the most populous of the Kingdom, the average annual number of deaths from consumption is 337 per 100,000 inhabitants.

In England, according to Mr. Loch, there are 150,000 to 200,000 persons sick with consumption and 41,000 deaths every year. In Switzerland, with 2,800,000 population, the number of consumptives reaches 50,000. The average for the three years 1895-1897 was 23.8 deaths from tuberculosis per 10,000 individuals. According to Dr. Knopf, of the 4,500,000 population of Portugal, 20,000 die from tuberculosis every year.

The following table from the office of the German imperial board of health gives the number of deaths for each 10,000 population from tuberculosis and pulmonary inflammation in the different nations mentioned:

Countries.	Deaths.	
	From tuberculosis.	Pulmonary inflammation.
Russia .....	39.8	42.1
Austria .....	36.2	22.8
Hungary .....	31.8	24.4
France .....	30.2	30.4
Sweden .....	23.1	27.2
Germany .....	22.4	26.5
Switzerland .....	20.3	21.3
Ireland .....	20.3	27.7
Denmark .....	19.1	23.2
Netherlands .....	18.8	40.1
Italy .....	18.7	47.9
Belgium .....	17.6	46.8
Norway .....	17.4	17.6
Scotland .....	17.3	31.7
England .....	13.6	31.5

## MORTALITY IN FRENCH CITIES AND VILLAGES.

"Pulmonary morbidity and mortality are very general in France. If it is true, as contended by the imperial board of health of Germany, that the average duration of the disease is three years, which is rather below than above the truth, we can approximate of our people sick with that disease at about 500,000. In our cities having over 50,000 inhabitants the proportion of deaths from consumption and chronic bronchitis is 49.9 for every 10,000.

"In cities having from 10,000 to 50,000 inhabitants the proportion is 39.8 per 10,000.

"In cities of from 5,000 to 10,000 the proportion is 35.7. In cities of less than 5,000 the proportion is 33.8."

Paris is one of the great centers of tuberculosis. From 12,000 to 14,000 consumptives die there annually and the patients number about 40,000.

Many of the consumptives of Paris leave that city before they are far advanced and die in the country or in small towns, at the home of relatives. Some of them have come from the country to Paris, where they receive the first taint of consumption and bear the germs back with them to the old homes. If exact figures could be given of the number of persons thus leaving Paris it would materially raise the total number of deaths from that disease which should be charged to that city.

Monsieur Amodru gives elaborate statistical tables of the ravages of the disease in Paris, by wards or arrondissements, showing that the deaths are more numerous in proportion to population among the poor than among the rich. He quotes from the report of the extra-parliamentary commission, made to the ministry of the interior, that in towns of less than 5,000 inhabitants the number of consumptives increases in proportion as the population is lowered. It is true that this report applies to only 89 towns—insufficient to establish a precise rule. They give merely an indication, but until it is controverted it will remain a very disquieting indication.

Unfortunately, the observations thus far indicate that the disease is much more prevalent in the country than was supposed. Professor Brouardel, in his report to the extra-parliamentary commission, says that this question of the "progressive invasion of the country by tuberculosis has occupied my mind for several years. I have questioned many physicians on the subject, and their observations all tend to the one conclusion of the marked invasion of the country districts of France by this disease."

Dr. Ricochon, in speaking of an epidemic of consumption in a village, attributed its constant increase to the presence of the large barracks filled with soldiers. Compulsory military service causes the presence in the barracks of a constantly increasing number of consumptives, who are sent back yearly to die in their homes. Every one of them may create a center of tuberculosis contagion, all the more dreadful because military tuberculosis seems to be of exaggerated virulence. I could cite many cases of soldiers rejected as unfit who have communicated the disease in so short a time that they lived to see a brother or sister die from it.

In Paris and the Department of the Seine, in a given space of time, consumption each year caused 38 times more deaths than varioloid and scarlatina combined, 16 times more than typhoid fever, and 8 times more than diphtheria.

Statistics prove that consumption is increasing in France and Italy and is decreasing in England, Germany, and other countries. Its home is in all countries, and it attacks people of all ages, but statistics establish that it is between the age of 15 and 60 years that a person is most exposed to contract it and die from it. Men are more subject to it than women. The statistics of Würzburg, Bavaria, establish the proportion of 35.48 among men and 28.55 among women.

According to the Bertillon statistics the mortality in Paris is the same for the two sexes up to 15 years of age. After that the greater increase is among men.

During the six years from 1892 to 1897, 29,476 persons died of consumption in Paris, 17,006 men and 12,470 women.

Dr. Mingot, in report presented January 9, 1901, to the minister of the post-office and telegraph, says that among the 71,000 employees of the department the deaths from tuberculosis amount to 40 for every 10,000. For the Department of the Seine, Paris, this proportion increased to 62 for every 10,000, while in the general population of Paris the proportion is 49 for every 10,000. One of the great railroad companies reported that out of 40,000 employees 271 died of consumption in 1896 and 257 in 1897. In 1898 the number of employees was 41,800; deaths from consumption, 285.

The following table gives the losses in the army from tuberculosis during the ten years mentioned:

Years.	Invalided per 1,000.	Deaths per 1,000.	Total losses per 1,000.
1888.....	4.30	1.18	5.48
1889.....	4.24	1.05	5.29
1890.....	5.70	1.08	6.78
1891.....	6.10	1.33	7.43
1892.....	6.55	1.04	7.59
1893.....	6.33	.94	7.27
1894.....	6.55	1.01	7.56
1895.....	8.34	1.14	9.48
1896.....	7.34	.94	8.28
1897.....	7.84	.95	8.79
1898.....	7.13	.78	8.01

The number of persons rejected from the Army as consumptives increased very materially from 1888 to 1898. It passed from 4.30 per thousand to 7.13 per thousand. The number of deaths from the same cause diminished during that time from 1.18 to 0.88 per thousand. The total losses from deaths and rejection rose from 5.88 to 8 per thousand.

The armies of other countries also pay a heavy tribute to tuberculosis. A table is given which shows that the losses by death or rejection on account of tuberculosis are increasing in all the armies of Europe except that of England, where the mortality from consumption is diminishing.

Dr. Vincent affirms that of all diseases it is tuberculosis which causes the greatest ravages in the fleet. Jules Richard says that in 1855 "tuberculosis moves rapidly on board ships. Nothing is more true, and this is due in the first place to the close contact of men with each other, which increases the chances of contagion. But fatigue, overwork, the variations of temperature to which the men are exposed in going from one climate to another, are so many causes which explain the rapid development of consumption in the marine service."

From 1888 to 1897 the statistics of the marine hospital at Brest report 1,119 deaths, of which 501, 46.8 per hundred, that is to say almost half, were from consumption. In 1893 for the five marine hospitals in the ports of Brest, Cherbourg, Lorient, Rochefort, and Toulon the statistics report 35.5 per hundred deaths from consumption.

In 1898 the total number of deaths in our fleet rose to 2,176. Of this number 635, that is, more than one-quarter, were from consumption.

The army, the marine, and the railroads are not the only conglomeration where tuberculosis develops readily. Professor Brouardel says that wherever a man in his work, in the pursuit of pleasure, or while sick, is compelled to live part or all of the time among other people where habitations are overcrowded or even unhealthy the conditions necessary for imparting the disease exists. If he is well, his companions are a danger to him; if sick, he is a danger to them. The conditions of modern society oblige men to live together. As a child he is exposed in school; as an adult in the barracks, a workmen in the workshops; as a student in the schools, libraries, and laboratories. If he travels, he is exposed in carriages, railroad cars, too often dirty, in the hotels where patients have often preceded him, and insufficient pains have been taken to protect the new guest from possible contagion. Poor and sick, he enters a hospital where all the environments menace him. This peril from the crowding of people together is inherent in the very progress of civilization. It is the tribute we pay and it explains the constantly increasing menace of tuberculosis.

The following are a number of places which may become centers for breeding tuberculosis: Lyceums, colleges, and all kinds of schools, post-offices, courts, prisons, factories, hospitals and asylums, railroads, street cars, hacks, boats, stores, theaters and concerts, churches, libraries, convents, monasteries, restaurants, and saloons.

It was in 1865 that Villemain, in a celebrated letter to the Academy of Medicine, first declares that tuberculosis was contagious. The powers of resistance of the tuberculosis bacilli is very great. After heating them three hours at 100° they were found to retain all of their virulence. Moist heat, sunshine, and fresh air are the best known agents for the destruction of the bacilli. Savinski, after many experiments with tuberculosis sputum, concluded "that these expectorations could retain their virulence indefinitely while they remained in darkness, but that they lost it when exposed to the action of sunlight." Other authorities are here quoted in support of the sunlight cure,

It is not the breath of the consumptive which is contagious; the air which he expels does not contain the germs; it is the spittle, dried and reduced to dust, which is generally the agent of contagion. This dust coming from the dried spittle, and in which there are thousands of bacilli, arises in the atmosphere, enters the respiratory organs, infecting the bronchial tubes and lungs. Heller calculates that the bacilli expelled by a consumptive in one day number not less than 7,200,000,000.

The writer cites a number of cases of the disease caused by inhaling the bacilli expelled from consumptives.

Hypollite Martin has made many interesting experiments, in which he reports the inoculating of guinea pigs and rabbits with milk bought here and there in Paris. Since the discoveries of Dr. Koch there is no essential feature of the tubercular bacilli with which we are not familiar, and so widespread and numerous have been the experiments regarding its vitality and its resistance to physical and chemical agencies that it is now thoroughly understood.

#### THE CONSUMPTIVES' BREATH NOT CONTAGIOUS.

All agree that the air expelled by the patient does not contain the bacilli, and that it is the same in regard to the physiological secretions. Only the spittle is dangerous, and even there the liquid must be dried so that the bacilli can float in the air in the form of dust. It is demonstrated also that this dried spittle clings to the wall, the furniture, and the floor of the patient's room for months and even years. It is shown, on the contrary, that sunlight very speedily—in a few hours, in fact—destroys the bacilli. It is also demonstrated that consumption is contracted through the respiratory organs, but also and much less often by milk, and perhaps by meat of consumptive animals.

In short, we know that there is one kind of tuberculosis called "closed," very frequently ganglionic, osseous, and visceral; but in such cases the bacilli are prisoners and consequently inoffensive. Such consumptives offer no danger of contagion. We know also that the consumptive that expectorates the bacilli is dangerous and that we must protect ourselves against him. "Open" tuberculosis is the enemy which must be constantly combated.

#### NOT NECESSARILY CONTAGIOUS.

Consumption is by no means necessarily contagious. A healthy man, not predisposed, possesses a power of resistance to the bacilli, a natural immunity, which permits him to escape the contagion.

Although tuberculosis may not be hereditary, it is certain that the children of consumptives, by the mere fact of their birth in a state of organic weakness, are predisposed to the bacilli. In the same manner, children and adults who are characterized by what Lorraine and Brouardel call "infantilism" are more subject to consumption than others.

#### ALCOHOL THE GREAT ALLY OF CONSUMPTION.

General debility, overwork, every kind of excess, predisposes one to that disease. The influence of alcohol in developing consumption is denied by no one to-day. All clinicians have recognized this fact, and Professor Landouzy, in a résumé of his observations, used the picturesque expression that "alcohol makes the bed for tuberculosis."

Tuberculosis produced by alcohol generally occurs at an advanced age and its progress is very rapid. Of 252 patients suffering from pulmonary tuberculosis Jacquet found 180 caused by alcohol. Mr. de Lavarenne, in his report to the extra-parliamentary health commission, after having demonstrated that the deaths from consumption are increasing in France, proved that the increased mortality is in exact proportion of the increased consumption of alcohol.

The departments which are the greatest centers for tuberculosis are almost always those where there is the greatest consumption of alcohol. It is therefore of the first importance in the war against consumption to also combat drunkenness. Consumption is avoidable. Brouardel says that if a person is predisposed to it from birth, he may escape it by living in a healthy locality, in an apartment exposed to air and sunshine. On the contrary, a strong and vigorous man, with no hereditary or acquired predisposition, may not escape the contagion if he lives in unhealthy surroundings. It is in dark, closely packed abodes that this disease is cultivated.

## TO PREVENT THE SPREAD OF THE DISEASE.

It should be thoroughly understood that the spread of this disease can be prevented. People must be prohibited from spitting on the floors, and the dried dust from expectoration must be rendered harmless. It has been proposed that the act of expectorating upon the ground or floor anywhere should be made a crime and punishable as such. Without going so far, for it seems to us it would be very difficult to prevent spitting in the street, it would suffice to confine the prohibition to buildings under the control of the State, depots, museums, etc. "We should recall that this prohibition exists in America and has never called forth much criticism. Knopf reports that a few years ago in San Francisco a well-known millionaire, Mr. B——, was condemned to twenty-four hours in prison for violation of this law."

Another precaution is profuse sprinkling before sweeping. This should apply to streets and sidewalks as well as to the interior of houses. Houses and the apartments of consumptives should be thoroughly cleaned and ventilated after the departure of the patient.

In its general conclusions the report recommends careful inspection of meat and milk; the organization of a veritable crusade against tuberculosis in the barracks; the prohibition of the use of alcohol among soldiers; a ration of 360 grams of meat daily; the placing of large hygienic spittoons everywhere, raised 3 feet from the ground, and improved ventilation. The use of metallic spittoons containing antiseptic solution is recommended and the floors to be well sprinkled before being swept. These recommendations also apply to the marine, with the addition that all consumptives should be kept isolated. The use of disinfected metallic spittoons and the recommendation in regard to sweeping applies to all public buildings, depots, saloons, schools, places of amusement, etc.

## CONSUMPTION IS CURABLE.

The report declares that consumption is curable at all stages. Professor Bouchard is quoted as saying, "This disease, which is cruel to mankind, is curable in the greater number of cases." All medical action should be constantly inspired on the belief that the disease is curable. The contrary idea is nothing more than an historical souvenir."

Mr. Darenberg says that during the last ten years he has cured a number of consumptives, who have resumed their active occupations, have married, and now have healthy children. "I can even say," says he, "that I myself am the consumptive that I know the best of those I have cured. I am therefore able to confirm that consumption is curable."

Pure air, such as is found on the seashore and on high mountains, is the best remedy for consumption. That air, free from microorganisms and dust, smoke, the numerous adulterations engendered by human activity, far from the industrial centers and the numerous fermentations of decaying substances in the large cities, contains all the necessary aseptic qualities. However, in order that this remedy should be effective, this pulmonary asepsis should be continuous—that is to say, that the patient should not only keep his windows and doors open night and day, but that he should persevere in this air cure for a long time.

He should have plenty to eat, and eat often, and should enjoy absolute physical and mental repose. Sanatoria for consumptives should be constructed in a place sheltered from unfavorable winds; in a healthy locality, in the neighborhood of pure water, where the air is free from dust and poisonous emanations; in an isolated spot at a good distance from any large population—if possible, on the southern slope of a wooded hill or mountain, where the summit of the hill and neighboring trees protect it from strong winds.

## DISEASES OF THE RESPIRATORY SYSTEM.

These diseases gave an admission rate of 79.58 for the Army as a whole: 50.30 in Porto Rico, 62.19 in the Philippines, 71.93 in Cuba, and 121.40 in the United States.



## RHEUMATIC AFFECTIONS.

There were recorded in the Army during the year 366 cases of rheumatic fever, or 3.96 cases in every thousand of the strength. One death occurred, the fatal case being reported from the Philippines. The admission rate did not vary much in the different commands. It was 4 per thousand in the garrisons of the United States, 4.34 in Cuba and Porto Rico, and 3.90 in the Philippines and China.

In addition to these, muscular rheumatism, chronic articular rheumatism, and other diseases of the muscles, bones, and joints gave an admission rate of 58.98 with 1.60 discharges for disability per thousand of strength in the Army as a whole: 71.36 with 2.90 discharged among the troops serving at the home stations, 53.94 with 1.08 discharged in the Philippines, 54.37 with 1.14 discharged in Cuba, and 54.64 with 1.74 discharged in Porto Rico.

## INTESTINAL DISEASES.

During the calendar year 1901, 28,918 cases of intestinal disease were reported, equivalent to 312.69 cases per thousand of the strength, with 0.75 per thousand discharged for disability and 3.64 deaths.

According to a report from Col. A. C. Girard, assistant surgeon-general, U. S. Army, commanding the general hospital, Presidio of San Francisco, Cal., there were 837 cases diagnosed as chronic dysentery admitted to the hospital during the year, of which 279 were due to ameba of dysentery, the remainder being divided between the ordinary catarrhal form of dysentery and the chronic specific form. Of the amebic cases 9 died; of the chronic specific form, 12. One case died which showed the characteristic lesions of marked catarrhal dysentery. The small rate of mortality shown in the cases of dysentery admitted to the hospital during this year is due to two factors: First, that the cases admitted were not in as advanced a stage of the disease as those admitted in previous years, as a rule. Second, that the experience in treatment of dysentery cases at this hospital for three years has resulted in a better knowledge of the therapeutics of the disease, and consequently better success in its treatment. In the amebic cases the injection of a strong solution of quinine has been pursued as a routine measure. This treatment has proven most satisfactory, as shown both by the physical condition of the patient after commencement of the treatment and by examination of the stools in the laboratory. The ameba quickly disappeared from the feces, as did also blood and mucus; the patients gained in flesh, and in the majority of cases rapidly convalesced. Some of the patients, however, after treatment has been discontinued, relapse, and it is again necessary to resume the treatment. Taken all in all, the treatment by quinine injections in amebic cases has proven the most satisfactory that has yet been tried at this hospital. In the cases which were not amebic various therapeutic procedures have been tried, but in all these cases the element of diet seems to play a more important part in the recovery of the patients than anything else. No routine diet has been found to be satisfactory, each case having to be treated separately. A strict milk diet in some cases rapidly promotes convalescence in the patients while in others it has been found necessary to give some solid food. A thorough study of the cases of dysentery,

aside from those due to ameba, but proves the fact that each case must be judged separately and studied thoroughly. Routine treatment in these cases is unsatisfactory. Injections have been used somewhat extensively. Those containing nitrate of silver have in a few cases proven very beneficial, but in most cases the severe pain caused by the use of this solution has precluded its employment.

#### CHOLERA.

No case of cholera was reported from the Army during the year 1901, but on the afternoon of March 20, 1902, two suspicious cases were reported to the board of health of Manila as being present in the San Juan de Dios Hospital. Lieut. R. P. Strong, assistant surgeon, U. S. Army, was sent to investigate these cases, but before he had concluded his inquiry two other cases were reported. As the result of his examination of these four cases he reported to the board that cases of Asiatic cholera were present in Manila, and that the spirillum of Koch had been isolated from these cases. Orders were immediately issued from headquarters of the Division of the Philippines containing instructions to all officers for the protection of their commands, of themselves, and their households; and Colonel Sanger, inspector-general and chief of staff, was directed to visit all barracks and camps, corrals, and other places pertaining to the administration and command of the army in Manila, and to ascertain whether the orders were thoroughly understood and in course of execution. Two days later orders were issued announcing that at the request of the civil governor all medical officers were made members of boards of health and required as such to take charge of the sanitation of the towns in which they were stationed. On the same day the chief surgeon issued a circular with regard to the use of disinfectants.

These instructions and requirements were promulgated in the departments of the division. Later, on April 11, a circular was issued from headquarters of the division giving a very thorough discussion of the cause, prevention, pathology, diagnosis, and treatment of Asiatic cholera, compiled by Maj. Charles Lynch, surgeon, U. S. Volunteers. As the result of the carrying out of the measures required by these orders and circulars the troops in Manila and other infected towns suffered little from the disease, while the native and Chinese residents suffered severely. In his report for the month ending May 15, 1902, the chief surgeon reported that in Manila, which was the focus of the disease, no case had occurred among the troops, but that Pasay, Santa Mesa, and the transports *Warren* and *Hancock*, in the harbor, each had a case or two. Outside of Manila, however, 51 soldiers had been affected and 31 had died. The disease first appeared in soldiers in the Camarines, 14 cases having been reported from that province, the other 37 having occurred in small places near Manila, especially on the lake, in men who had drunk Pasig River water while en route to their stations. With a view to guarding against infection from this cause in the future, a recommendation was made to include in orders for the movement of troops in cholera territory a paragraph requiring the providing of distilled water and cooked food in sufficient quantity, and the presence of a commissioned officer on each casco or other boat.

In the city of Manila at this time the cases numbered 1,005 and the

deaths 800. Twenty-three Americans and 13 Europeans had been attacked, with 18 and 10 deaths, respectively. In the provinces 3,210 cases, of which 2,522 were fatal, had been reported, but it is probable that a moderate estimate of unrecognized, unreported, or concealed cases would add 20 per cent to these numbers.

A report written about this same date by Capt. Thomas R. Marshall, assistant surgeon, U. S. Volunteers, in charge of the Santa Mesa and the San Lazaro cholera hospitals, shows 186 admissions, of whom 4 were Americans, 4 Europeans, 157 Filipinos, 20 Chinese, and 1 Japanese. The mortality among these patients was 82.16 per cent, but of these 4.33 per cent died en route to the hospital, and 18.37 per cent were practically dead on arrival and expired shortly after admission, notwithstanding vigorous stimulation. If these deaths en route and cases admitted in collapse are deducted from the total mortality, the death rate of those who really underwent medical treatment is reduced to 59.46. Rice water stools, vomiting, suppression of urine and bile, shrinking of the soft spots, fallen cheeks, pinched nose, sunken eyes, shriveled fingers, cold body surface bedewed with a clammy sweat, rapid and shallow respiration, thready, weak, and rapid pulse, with voice sunken to a whisper or entirely lost, and subnormal temperature were the characteristic symptoms. The definite lines of treatment advocated from time to time proved of no material service. These included the eliminative treatment of Johnson, the ice-bag treatment of Chapman, the various antiseptic methods directed to the destruction of the vibrios in the intestinal canal, and the drugs designed to counteract the physiological effect of the cholera toxins. Benzozone (benzoyl acetyl peroxid) was administered in capsules as a germicide in doses from 0.065 to 0.32 cubic centimeter, but it was found to be a gastric irritant, producing almost invariably retching and frequently vomiting. When the capsule was ruptured by the teeth in the act of administration, which was frequently the case with natives and Chinese, the drug produced excoriation of the mouth and tongue, gums and lips, so that nourishment by mouth was seriously interfered with, necessitating nutrient enemata and a discontinuance of the drug. When this drug was administered in solution (1:1000) by rectal injection beneficial results were claimed. The injection of 237 cubic centimeters of normal salt solution with 30 cubic centimeters brandy into the lower bowel of all adult cases on admission, and a proportionate quantity for children, proved stimulating and advantageous. The transfusion of normal salt solution into the larger veins in from 30 to 60 cubic centimeters was resorted to in a large number of cases, and in collapse it gave the most gratifying results. The use of strychnine hypodermically proved more advantageous than digitalis, nitroglycerin, or whisky. Opium, caffeine, chlorodyne, and brandy were used with good results. Concentrated liquid nourishment only was employed, and this in quantities of from 30 to 100 cubic centimeters, as indicated by gastric toleration. Milk, milk punch, eggnog, soft-boiled eggs, wine, and beef extract were best retained, but gastric intolerance was so common a symptom that rectal enemata had frequently to be employed.

A report from Ibaan, Batangas Province, by Capt. L. B. Sandall, assistant surgeon, U. S. Volunteers, shows the difficulties encountered by medical officers in their efforts to combat the disease among the natives. In anticipation of an invasion of cholera from Manila, a local

board of health was organized and held regular meetings. Twelve inspectors and 45 subinspectors were appointed. Cholera, with the methods by which it is spread, was thoroughly explained to them and the best means for its prevention were discussed in detail, with the reasons for each precaution taken. Each inspector visited his district once every day and the post surgeon visited all the districts twice a week. A great deal of cleaning up was done and a quarantine against other towns was established. After these precautions were taken the first case of cholera was reported by an inspector. The surgeon found the patient dead on reaching the house. He found also that all the neighbors had visited the sick man before his death. That same afternoon another case, also fatal, was reported. All the neighbors had been present at the patient's death and the children of the household were scattered in several different places. Next day cholera was reported in three barrios, and on the day after in two more. The surgeon found that the people would not keep out of the cholera-infected houses nor follow instructions in any way. Soiled clothing, which, in accordance with orders, should have been burned, was washed in the river for future use. Regulations required infected houses to show a red flag, but the natives gave no heed to this warning and to them the presence of the flag was seemingly only a kind of a joke.

In his report for the month ending June 15, 1902, the chief surgeon gives the following statement of the cholera situation:

Cholera has attacked 2 officers, 62 American and 1 native soldier. The greater number of cases in troops has occurred in Laguna and Batangus. The cause in the majority of instances has been the drinking of infected water. A few cases have been due to food contamination, either by handling or by flies. A total of more than 150 places has been attacked, extending from Laoag on the north (1 case in the harbor), or Lingayen (3 cases among natives in the town), to Dulag, Leyte, on the south. A few cases have appeared in Samar and Leyte, but the disease has not spread widely. In the Camarines Sur the epidemic seems to have been stamped out, but in Laguna and Batangas and the adjacent part of the province of Tayabas cholera has spread in virulent epidemic form, hundreds of cases probably having occurred without report.

Outside of Manila a total of 5,967 cases have been reported, with 4,290 deaths. In the city, 1,350 cases, with 1,100 deaths.

Cholera work, as reported in April, is carried on by the insular board of health in the city of Manila and by army medical officers acting as health officers at nearly all places in the provinces. The additional demand on medical officers has been met in the most satisfactory manner. Commerce is extensive between points on the lake in Laguna Province and Manila. As long as the ports of that province were closed no cholera appeared, but immediately on opening them the disease attacked first the ports and thence spread back into the country, invading nearly every town in its course. It is here especially where many cases die without being reported. The people in the small towns are very ignorant, consider cholera as a visitation from Providence, and can not be induced to take proper precautionary measures. There have been no rains during the month which have particularly affected the cholera situation.

Later information indicates a greatly increased prevalence of this disease. The chief surgeon, in his report for the month ended July 15, 1902, states that—

Cholera has spread widely through Luzon during the month, and has appeared in the island of Cebu. In Samar and Leyte the disease is still present, but has attacked comparatively few people in the small number of towns invaded. The contrary has been true in the recently infected sections of Luzon. In Pangasinan especially cholera has been extremely virulent, spreading rapidly from town to town, with great numbers of deaths. With the increase of the epidemic the proportion of recorded cases has very much decreased, and it is probable in the whole archipelago not more than one-fourth or one-fifth of the cholera cases are now being reported. The insular

board of health is almost entirely confining its efforts to the city of Manila, and such sanitary work as is done in the provinces is carried on by medical officers of the Army, but inasmuch as many towns are not now occupied by troops, cholera rages in them unchecked. A total of 25,000 cases is thought to be a conservative estimate for the archipelago. Quarantine regulations have become very irksome to natives generally. This, combined with the apathy of the people, makes the outlook extremely serious. In former epidemics cholera has always increased with the first rains. This is due to the fact that infected material deposited on the banks of streams is carried down to be drunk by the inhabitants on the lower reaches. Very heavy typhoons have, on the other hand, so increased the volume of water as to apparently sweep clean the banks of all streams, with the consequent subsidence of cholera epidemics. Such storms do not occur every year. Until a heavy typhoon comes, the disease may be expected to gradually spread from place to place and from island to island.

Among the troops 2 officers and 75 men have been attacked during the month, both officers and 52 of the men fatally. Nineteen men and the 2 officers belonged to native companies, though one of the latter was detached from his command. Several cases have occurred in Manila, but the majority of cases in troops have been in Laguna and Batangas.

#### ASIATIC CHOLERA.

*Definition.*—An acute infectious, epidemic disease, caused by the presence of the spirillum of cholera, the so-called comma bacillus of Koch, in the intestines, and characterized clinically by profuse purging and vomiting of a colorless, serous material, rapid collapse, and a high mortality.

*History of the disease.*—Although cholera has probably been endemic for hundreds of years in Lower Bengal and other Eastern localities, the great epidemic of 1817 first attracted serious attention from European observers. That epidemic did not, however, invade Europe, but spread widely over the East.

Europe was first attacked in 1830; the disease followed the trade route through Persia, entered Russia, and finally reached the British Isles in 1832. The same year cholera attacked the United States, the infection being carried by way of emigrant ships through Quebec, to extend as far west as the military posts on the Upper Mississippi; New York was also infected direct from England. The epidemic traveled all over the continent of Europe, where it lingered to 1839.

In America cholera recurred in 1835–36. The disease again invaded Europe in 1840, to remain until 1851, being carried to America through New Orleans in 1848, to spread widely in the Mississippi Valley, extending west even to California. The third European invasion, or possibly recrudescence of the preceding epidemic, covered the period from 1848 to 1857. In America it again appeared in 1849.

Other epidemics occurred in Europe in 1863–1867, 1870–1873, 1879, to linger to 1887, and 1891 to 1895; in America in 1854, 1866, 1867, and 1873.

Because of modern means of communication the disease has traveled much more rapidly westward in the more recent epidemics. This was especially noticeable in the European attack in 1891–1895, which is so well remembered on account of the severe visitation at Hamburg. This epidemic did not enter the United States, though cases were brought to the port of New York.

While the western spread of the disease from India has attracted more attention from the medical profession in America, eastern diffusions have also occurred to the Straits Settlements, Siam, China, Japan, and the Philippine Archipelago. It has been observed that preceding spread of the disease from its habitat in India that country has always suffered from an unusually violent outbreak.

Cholera has probably existed for many years in endemic form in China as well as in India, though lack of investigation of health matters in the former country has led to few reports of the disease.

The history of cholera in the Philippine Islands is rather meager. Two epidemics have occurred in recent years, the details of which have been obtained from native physicians who were practicing their profession in the islands at the time the disease appeared. The first and most serious was in 1881 and 1882, and is said to have caused some 34,000 deaths in Manila alone. The disease was not recognized as cholera, or at least was not officially announced as that disease, until a major of engineers died in August, 1882. It had then been so widely spread that more than 1,500 deaths occurred in one twenty-four hour period. This epidemic entered by way of Manila and extended thence into the provinces. It terminated after a severe typhoon late in 1882. In 1887 the second Philippine epidemic entered by way of Tawi-Tawi, gradually extended north, killing about 50 per cent of the population

of Zamboanga, attacked the islands in turn, at last reaching Manila, to linger during March, April, and May, 1888.

The late history of cholera is as follows: The disease was reported from India alone in January, 1900, but on January 1, 1901, had extended to Madras and the Straits Settlements. Between November 8, 1900, and March 16, 1901, 272 deaths occurred in Singapore. Buenos Ayres had 2 cases between February 1 and February 28, 1901, while in the weekly report of March 9, from Hongkong, 7 deaths were recorded. In India, from November 18, 1900, to March 18, 1901, 1,150 deaths occurred; 68 were reported from March 22 to March 28, Madras during the same time reporting 4. The disease attacked Batavia on June 2, 1901, and gave a total of 538 cases with 451 deaths up to September 28. Yokohama was attacked the same summer, but from July to August had but 8 cases and 3 deaths. A few cases also occurred in Formosa, while at Suez, in September, there were 6 cases and 1 death on a ship from Java. In the cities of Soerabaya and Samarang, of this island, nearly 3,000 cases were reported in the month of August. Borneo also showed 100 cases during the same period, and Sumatra about 90. Singapore, from October 1 to November 23, had 34 cases. These records are of interest in showing the gradual extension of the disease to points having commercial relations with this archipelago.

Exactly by what route the present epidemic entered Manila is not known. The disease has been ravaging Canton during the first part of 1902; thence it spread to Hongkong. Numerous other Chinese cities were undoubtedly affected. No vegetables were permitted imported from infected Chinese ports after March 5, 1902, but large quantities of such vegetables were thrown from ships in the harbor, and it is believed by the Manila board of health that natives living on the water front became infected from vegetables which they picked up on the shore. The other possible means of infection were by Chinese smuggled into the city, infected clothing from Hongkong, or possibly by persons who had entered legally, and while not apparently affected by the disease had the spirilla in their stools.

The district first attacked was a small barrio called the Farola, immediately above the light-house at the mouth of the Pasig River. This is a typical plague spot, the houses being built partly over the water, with no means of disposal of excreta, which, with garbage, is left on the shore by the receding tide. The greater part of the drinking water of the inhabitants was obtained from the Pasig River, which is foul with the drainage of the entire city.

The first case was reported at 2.30 p. m., March 20, 1902; before midnight that same night four cases had been found. A gradual increase has occurred to March 27, 1902, a total of 63 cases and 48 deaths having been discovered. The manner of the attack shows that there can be no general infection of the municipal water supply, but that some other cause must be in operation.

*Cause.*—Asiatic cholera is caused by the comma bacillus of Koch, the spirillum of cholera, which, growing in the intestines, gives rise to the characteristic symptoms of the disease, both by the production of toxins and by local action. Koch investigated the comma bacillus in Egypt in 1883, and in India the next year, fully confirming his former observations, nor could he find the bacillus in other diseases or in healthy stools. Koch's researches have been verified by numerous observers, though on account of variation in the character of the spirillum and the fact that spirilla closely resembling those of cholera have been found in other diseases considerable controversy has arisen.

The cholera spirilla are small organisms, 1.5 to 2 micromillimeters in length and a little less than 0.5 micromillimeters in thickness. They are curved like a comma; hence the name. Two attached may give an S shape. Longer forms occur, though more commonly in cultures than in the intestines.

In films from the intestinal contents, in typical cases, organisms are found in almost pure culture, all with their long axes in the same direction, to which characteristic arrangement Koch called attention, comparing it to fish heading up a stream.

Cholera spirilla are flagellated, usually having but one delicate flagellum, and are actively motile. They do not possess spores. In old cultures there is much variation from the typical form, the so-called involution forms.

The spirilla stain readily with the basic aniline stains; Loeffler's methylene blue or weak carbol-fuchsin being especially satisfactory. They are decolorized by Gram's method.

In the body they are found only in the intestines and are never present in the blood or internal organs. The lower part of the small intestines is their favorite habitat. While, as stated, they are never found in the blood or internal organs, they do penetrate the intestinal wall, even to the connective tissue. Coincident with such penetration, the mucosa becomes congested, especially around Peyer's

patches and the solitary follicles, which are swollen and prominent. In the chronic cases there may be extensive necrosis of the mucosa, hemorrhage, and the formation of false membrane.

The comma bacillus grows freely on all ordinary media, the body temperature being the most favorable; below 16° C. death usually follows.

A fairly characteristic appearance is given on gelatin plates. Minute white points are visible in twenty-four to forty-eight hours; these under low power show an irregularly granulated or furrowed outline, becoming larger, they give an appearance which has been compared to pieces of broken glass. Later liquefaction occurs and the colonies sink into the cup so formed. The outline of the cup is sharp; the liquefied portion within forms a ring which is granular, while the mass of growth in the center is irregular and broken at the edges. Later, with the continued liquefaction, the characteristic appearance is lost.

Another characteristic reaction, though unfortunately not pertaining solely to the cholera bacillus, is the so-called cholera red. To obtain this add a few drops of pure sulphuric acid to a twenty-four-hour culture, at 37° C., in peptone bouillon or solution of peptone 1 per cent; a pinkish red color results by the reaction of the sulphuric acid with the indol and nitrite formed in the medium, giving a nitroso-indol body. It has been found that all peptone will not give the reaction, and it is advisable when possible to try the peptone with a known cholera culture before using. The sulphuric acid must also be pure. This test is important, is always given with the comma bacillus, and the other organisms which also give it are few in number.

The spirilla grow best in the presence of oxygen, but will grow more slowly without it.

The rapidity of the growth of the cholera organism on all media is of importance in separating it from other bacteria which somewhat resemble it. This growth is especially rapid in alkaline bouillon and peptone solution. In the former at 37° C. in twelve hours the medium becomes turbid and a thin pellicle forms on the surface.

The powers of resistance of cholera spirilla correspond closely to those of other spore-free organisms; they are killed within an hour by a temperature of 55° C. and more rapidly at higher temperature; neither are they resistant to antiseptics, lime (1 per cent in water) destroying them within the same period. Their resistance to cold is greater, although a few days in ice kills them.

In sewage water they do not increase, but live for some time; in distilled water they may live for several weeks, but do not multiply unless considerable organic matter is added; on moist linen they multiply rapidly. Experiments show that in fluids generally when grown with other bacteria, although they increase at first, they are finally overcome by the other organisms.

The conditions governing their saprophytic existence are of great importance from a hygienic standpoint, and as a general statement a warm temperature, moisture, oxygen, and a supply of organic matter may be said to favor their growth, and there can be no doubt that they can and do exist for a considerable time outside the body, thus keeping up and spreading cholera epidemics.

Cholera is not a contagious disease any more than is typhoid fever, which is spread by the same means, and therefore in cholera, as in typhoid fever, in order to study means of infection it is necessary to examine solely agencies by which the bacillus is conveyed to the well from the dejecta of the sick. Transference by means of dust is, however, more unlikely in cholera than in typhoid, as the cholera spirillum is more easily killed by drying than is the typhoid bacillus, and can not be carried through the air. While cholera and typhoid are thus compared and the statement made that cholera is conveyed from sick to well by practically the same means as enteric fever, familiarity with the latter disease should not minimize in thought the danger of infection in the presence of cholera, which is considerable.

Cholera is spread by drinking water infected with cholera excreta; the use of infected water for diluting milk, for washing cooking utensils or dishes, etc., on which food is served, or for washing clothes by which such utensils, dishes, etc., are wiped; flies which carry the spirilla from infected dejecta to food (the organism has been found in flies twenty-four hours after contact with such dejecta); in nurses and washerwomen, direct conveyance of dejections from the patient or his clothing to the mouth; food accidentally contaminated by handling; vegetables and fruits sprinkled with infected water or manured with human excreta; shellfish taken from infected waters.

The home of cholera is also the home of poor water, and in India there is unquestionably repeated infection of water supplies.

It must not be thought, however, that every person who drinks infected water or injects the spirilla is attacked by the disease, for this is far from the truth, as individual susceptibility varies within wide limits. A comparative immunity is enjoyed

by those who have an active gastric digestion and a healthy intestinal mucous membrane, and all factors which tend to interfere with this healthy condition just so much make persons more liable to cholera infection. These factors may be heavy drinking, the eating of indigestible foods or overripe fruits, or the use of inordinately large quantities of ice water, etc. As in many other diseases, the resident possesses a certain immunity over the new arrival in an infected locality.

While methods of infection in cholera are the same in these islands as elsewhere, some knowledge of local conditions is necessary in order to effectively combat the disease. As is well known, the inhabitants of the Philippine Islands universally drink impure water; there are no municipal water systems except in Manila and Jolo, and the numerous streams of the archipelago serve all purposes, the population utilizing them for defecation, washing of bodies and clothing, and for drinking and washing of cooking utensils; nor are the municipal water supplies much less dangerous. The whole drainage of the Mariquina Valley is into the river which supplies Manila, not less than 10,000 people living on that stream above the intake. The water is not purified by filtration or other method, and has been found to contain 800,000 colonies per c. c. a short distance above the intake. This number is somewhat diminished by the time the water reaches the city. It is stored for a short time in the reservoir at El Deposito, and in that way loses some bacteria by sedimentation.

Vegetables grown in the islands are necessarily sprinkled with contaminated water, perhaps in addition fertilized with human excreta, and in the presence of cholera are dangerous.

Locally, aerated waters and sorbete, of which the natives are so fond, are also very likely to convey cholera infection. Aerated waters are prepared from any water which is not too dirty to affect the appearance of the product. Since American occupation the factories in Manila have improved, and were at one time provided with filters, either the Berkefeld or Pasteur, but as obtaining water from such filters is rather a slow process, it is believed that they are generally used only during visits of inspection. Moreover, they are not cleaned frequently, thus giving an opportunity for the spirillum to grow through them.

It is not generally appreciated what a large business aerated-water manufacture is in the city of Manila. There are over 20 firms engaged in making such water, and the capacity of the largest concern is some 20,000 bottles per day.

Sorbete, the native ice, is made from well water, or, more commonly, since the Government ice plant, around which vendors congregate, has been in operation, from either city water or that of the Pasig River. As soon as the ice is prepared it is peddled through the streets and is unquestionably dangerous.

From an infected locality cholera may be carried to another place by cholera-infected rags, cholera-infected food, or by man infected with cholera.

The first two methods need no further discussion, but man may undoubtedly carry the disease, although he himself may not be affected by it, or apparently not affected, as a man from an infected area may present no symptom of cholera clinically, though on bacteriological examination the spirillum may be found in the feces, and will just as surely infect a water supply as though from the feces of a person with a typical attack.

Two different manifestations of the disease occur. If a public water supply is infected, a widespread epidemic may be looked for among those who drink the water. If, on the other hand, the organisms do not gain access to the public water supply, they may be deposited near the habitations of the people and give rise to small, confined outbreaks of the disease, so-called cholera nests. Some only local cause is in operation in this variety of the attack; it may be a certain well, infected vegetables only consumed in the locality affected, etc.

The predisposing causes of the disease are not notable; places near the sea are more liable to attack, and high temperature favors development, but any factor which favors the infection of water, foods, or clothing favors the disease, and the better the sanitary condition of the city is, especially in regard to water supply, the less likely it is to be attacked. This was clearly shown in the Hamburg epidemic, when within three months that city had 18,000 cases of cholera, while Altona, separated only by the width of a street, practically escaped. Both cities derived their water from the Elbe, but Altona had in operation a modern scientific system of municipal filtration, while the inhabitants of Hamburg were supplied with unfiltered water.

No age is exempt from cholera, but hard drinkers, the inadequately fed, and those debilitated by bad surroundings are more liable to attack. Fear has also a great influence, probably by diminishing the amount and acidity of the gastric juice. One attack does not secure immunity.



*Prevention.*—If the dejections and vomit of every cholera patient could be thoroughly disinfected, the disease would be soon stamped out; either a 4 per cent of chloride of lime solution or 5 per cent pure carbolic acid solution is effective, being put in the vessel before the stool is received, in sufficient quantity to cover it.

The vomited matter does not contain spirilla in large numbers, but should receive the same treatment. Clothing which has been in contact with the patient must also be disinfected with the carbolic solution, as infected matter may be conveyed to the mouths of those handling it. The hands of nurses and washerwomen should not be introduced into the mouth, and before eating or smoking should be washed and disinfected for five minutes in a 1 to 1,000 solution of bichloride.

Practically it is impossible to disinfect all excreta containing the cholera spirillum, cases escaping such disinfection just as typhoid cases do, and water supplies should be carefully protected from accidental contamination, or if this be impracticable, systems of municipal filtration installed or other means taken to render the water safe when supplied to the consumer.

Great Britain has been successful in protecting herself from inroads of cholera by general sanitation, especially looking to protection of water and food supplies. The measures put in operation by that country have practically done away with the necessity for quarantine, with consequent loss and inconvenience to merchants and travelers, and constant danger from evasion of quarantine regulations. Only ships which have or have had cholera on board are detained, and then only for disinfection; cholera cases are isolated in hospitals especially set apart; the rest of the passengers are given free practice, though they are kept under supervision during the period of incubation. A careful watch is also kept, especially in seaport towns, for suspicious cases, which, when found, are isolated with disinfection or destruction of fomites. At the same time no articles which may have been infected with cholera are permitted imported, except after efficient disinfection. An attempt has been made to institute like measures in India, with some benefit in certain localities.

While there can be no doubt that the English methods are effective and can be practically carried out in civilized communities, the time is not yet ripe for depending solely on such measures in this country, and for protection of the inhabitants strict quarantine measures against infected localities are imperative.

All passengers from infected ports should be detained at least five days in quarantine, separating all suspicious cases and disinfecting their excreta as though they were surely cases of cholera; passengers' effects should be disinfected, vegetables which are not thoroughly cooked in preparation for the table destroyed or returned, without allowing them to be landed, and all rags or worn clothing which have been shipped for import burned. For other articles discretion should be used; if they can be satisfactorily disinfected without question they may be admitted, otherwise excluded, as sanitary conditions here are such as to demand that no risks be taken. If cholera has occurred on the vessels anything which may have been infected must be disinfected and practically the measures above specified carried out. Intercourse between infected and uninfected towns should be governed by the same rules.

All towns in the archipelago should be at once put in good sanitary condition, and the natives instructed as far as possible in the necessity for boiling their water. It is regarded as hopeless to obtain a pure water supply in any great number of places, but if that can be done immediate advantage should be taken of the fact.

On the appearance of the first case of cholera in a town, by careful disinfection of dejecta, clothing, etc., as noted above, it should be made sure that at least there is no further spread from that case. All water consumed in the town must absolutely be boiled to insure safety, as well as all vegetables not cooked in preparation destroyed to prevent infection. The patient should be isolated in his house with necessary attendants, and the rest of the contacts placed in a detention camp for five days, as must the attendants after the recovery or death of the patient. If death occurs the body should be buried far from a water course in chloride of lime.

It is not necessary to establish cholera hospitals at a great distance from other hospitals or habitations, simply far enough so that persons in the vicinity can not infect themselves directly from the dejecta or vomit of cholera patients.

In the presence of cholera, individuals should protect themselves by correcting any sanitary faults about their own dwellings, by removal of any accumulations of organic matter, or disinfection by 4 per cent chloride of lime, if they are not removable; by disinfection of all privy vaults and cesspools with the same solution in the proportion of 10 parts to every 100 parts of the contents of such vaults; by exclusion of flies from vaults. The scattering of chloride of lime on the ground is of little or no value; it must be used in the form of a solution, and in quantities sufficient to come in contact with all infected material. Of the first importance, however, are measures to prevent any infected matter from being taken into the mouth. No water which has not been boiled or distilled should be used, nor vegetables which are not

thoroughly cooked when served, and all kitchen dishes and clothes should be washed in boiling water or boiled, and all food should be protected from flies.

As further measures everything which tends to keep the individual in most healthy condition is demanded. The danger of heavy drinking, etc., has been alluded to. Exposure to the tropical sun, overfatigue, etc., are important, as is also immediate treatment of a slight diarrhea.

The well-to-do in the Philippines, including most of the Americans and Europeans, are protected from cholera in a measure by the better sanitary conditions under which they live. Danger for them lies mainly in the carelessness of ignorant or irresponsible native or Chinese cooks and servants, and personal supervision of their kitchens is necessary if they do not wish carefully boiled water cooled by the addition of unboiled, the exposure of food to flies, the use of infected water in washing dishes, and the wiping of dishes with infected rags.

The prophylactic value of Haffkine's anticholeraic inoculations has not been proved, although extensive use in India has, on the whole, been attended by favorable results. The method of preparation is by passing a culture through a series of guinea pigs by intra-peritoneal injections, in this way increasing the virulence of the culture until such virulence can be no further augmented. An agar slant is then inoculated with the virulent culture, which is allowed to grow at 40° C. for twenty-four to thirty-six hours, the tube being used when the whole surface of the slant is uniformly covered with the growth, a solution being made by filling the tube one-third the height of the agar with sterilized water and shaking until all the growth is washed from the agar and suspended in the water. Half a cubic centimeter of this suspension is used for the injection.

Considerable edema and tenderness are produced at the site of the injection; the constitutional effects are marked by fever and general indisposition, the fever lasting about thirty-six hours, while the local effects do not disappear for four or five days.

*Morbid anatomy and pathology.*—There are no characteristic pathological changes in cholera. From the profuse diarrhea and the consequent loss of water, the body is shrunken, with all its structures very dry. Rigor mortis is early and gives rise to displacements of the limbs, which during cholera epidemics have been taken as indications that persons have been buried alive; the fact that there is not infrequently a post mortem rise of temperature going to confirm this belief. The heart is flabby, the right chamber distended with dark blood, while the left is empty; the lungs are collapsed with some congestion at their bases. No special changes are noted in the stomach, but the peritoneum is sticky. The small intestines contain the characteristic rice-water material loaded with the spirilla.

The coils of the intestines are shrunken, while, as before stated, the mucous membrane is congested. The spleen is not changed, except in being somewhat smaller than normal, but the liver and kidneys are both affected with cloudy swelling, the kidney showing in addition coagulation necrosis and loss of epithelial cells. The pathological changes given are those of the ordinary rapidly fatal case of cholera. In those who die after the stage of collapse the inflammation of the intestines is more marked, as are the changes in the liver and kidneys.

*Symptoms.*—The incubation period is short, from two to five days. Cholera attacks in one of two ways, either with a premonitory diarrhea or suddenly without preliminary symptoms.

Three well-marked stages are usually observed: Premonitory diarrhea, stage of collapse, and reaction period.

Diarrhea is common during cholera epidemics—whether it exists in those cases which are followed by cholera, as a preliminary stage of true cholera, or whether the existence of the diarrhea induces cholera by impairing the resistance of the intestinal mucous membrane, is not evident. There may be other prodromata, such as headache, malaise, depression of spirits, etc. There may or may not be fever.

In any event, with a premonitory stage of one or two days, or suddenly the sufferer enters into the stage of collapse; profuse liquid passages follow each other with great rapidity, painlessly or with griping and tenderness. These passages at first contain fecal material, but soon assume the characteristic rice-water appearance, consisting of a serous fluid with white flocculi in suspension; accompanying these passages, which are very large in amount, there is a sense of exhaustion, and the thirst becomes extreme, while from the loss of water in the muscles cramps occur, especially in the legs and feet. Early, or sometimes not until a few hours have passed, vomiting sets in, first of the contents of stomach, but afterwards of the same serous material passed by the bowels.

With the continued diarrhea and vomiting the muscular cramps become more severe, the muscles of the abdomen and limbs becoming rigid or thrown into knots. The patient now passes into collapse; he is hardly recognizable, the cheeks falling in, the nose becoming pinched, and the eyes sunken; at the same time the body becomes

cold and livid with clammy sweating, the secretions, especially bile and urine, are suppressed, the respirations rapid, and the voice almost inaudible; the pulse begins to fail, becoming thready, weak, and rapid, even to be entirely lost at the wrist. The surface temperature is much reduced, 93° to 94° F., while at the same time in the rectum it may be elevated to 101° F. to 105° F. That restlessness so often seen in severe hemorrhage from lack of blood supply to the brain is marked, the patient throwing himself from side to side. Thirst is intense, the cramps become more severe, and there is a burning pain in the chest. The mind may remain clear, may wander, or the patient may become comatose. This is the so-called algid stage of cholera and may terminate in death, rapid convalescence, or the reaction stage.

When death occurs it may be within two hours from the onset of the disease, or the sufferer may linger for thirty hours, though ten or twelve hours is the usual duration of cholera.

When the patient enters into the convalescent stage there is an abatement of all symptoms, with the return of the secretions, and in a few days the patient may be practically well. However, the typical case which recovers enters into the reaction stage. At first this is characterized by the same symptoms as the stage of rapid convalescence, but with the subsidence of the alarming symptoms of the stage of collapse fever develops. This fever may be transient, disappearing in a few hours, or cholera typhoid may supervene. The duration of this cholera typhoid may be from four or five days to two weeks. This state in cholera is as seen in other diseases—sometimes there are severe hemorrhages from sloughing of the mucous coat of the intestines. During the stage of reaction death not infrequently occurs, sometimes from asthenia, but often from such complications as pneumonia, enteritis, or uræmia.

Many variations occur from the typical case described.

Very high temperatures are occasionally noted, even to 109° F., in the rectum. All such cases die.

Ambulatory cases are not uncommon and are characterized merely by diarrhea and malaise, often without cramps and without the development of a stage of reaction. Cholera is somewhat more severe in its symptoms, the diarrhea being more acute, the stools having the true rice-water appearance, but without any suppression of urine following or other dangerous symptoms.

The term cholera sicca has been applied to those very severe cases where death occurs from the overwhelming of the organism by toxins before diarrhea begins; collapse sets in very early, and such cases are likely to be mistaken for some other disease—as, for example, bubonic plague, when that disease coexists in a locality—but on post-mortem the characteristic rice-water material, swarming with the cholera organism, is found in the intestine, whence from the rapidity of the attack it has not been voided during life.

Sudden death occurs not infrequently in typical cases of cholera from asphyxia, caused by the coagulation of blood in the right heart or by spasms in the pulmonary arteries, the weak heart not being able to force the thick blood through the narrow arteries.

Cholera has important sequelæ: Anæmia, mental and physical debility, chronic entero-colitis, nephritis, pneumonitis, parotitis leading to abscess formation, ulceration of the cornea, bed sores, localized gangrene, etc.

The occurrence of jaundice is almost invariably fatal; pregnant women nearly always miscarry, the fetus having cholera. Like other epidemic diseases, cholera varies greatly in severity in different cases and different epidemics. Fifty per cent is the average mortality, but in the beginning of an epidemic it is usually much higher.

*Differential diagnosis.*—During an epidemic of cholera diagnosis does not usually present great difficulty except in atypical cases of cholera sicca or ambulant cases. The first cases of cholera appearing in a town, however, are frequently not recognized as that disease, thus leading to infection of water supplies, food products, etc. It is therefore necessary for every physician to examine carefully all cases of diarrhea when cholera is present in the vicinity.

The diseases most likely to be mistaken for Asiatic cholera are cholera nostras, diarrheas, mushroom poisoning, poisoning by arsenic, the early stage of trichinosis, and pernicious malarial fever. Cholera nostras not infrequently can not be differentiated symptomatically from the Asiatic variety, occasionally cases dying in as brief a period as from true cholera, with identical symptoms, nor is the examination of a slide from the dejecta always conclusive, although the diagnosis of Asiatic cholera may be made from such examination in 50 per cent of all cases, the comma bacillus being found in the usual arrangement. The presence of the proteus vulgaris indicates cholera nostras. If this examination of the dejecta does not establish the diagnosis, resort must be had to cultures, and an absolute diagnosis can not be given for about

twenty-four hours. Cultures should be made both on gelatin and for the cholera red test, both of which have already been described. Diarrheas due to ptomaine poisoning, unripe fruits, and other intestinal irritants simulate Asiatic cholera and may even require differentiation by cultures.

Examination of the stools is of the first importance in differentiation from the other affections mentioned, with cultures when necessary. Moreover, the blood serum of cholera possesses agglutinative properties even up to a dilution of 1 to 120. This test is made exactly as Widal for typhoid and is equally conclusive, but is not usually given until the second or third day of the disease.

The stools in mushroom poisoning show often pieces of the mushroom. In trichinosis the adult trichina may be found; also a noticeable increase in eosinophiles in the blood.

In arsenic poisoning the usual chemical tests for arsenic are easily made, and the plasmodium can be found in the blood in pernicious malarial fevers. A fact already mentioned should not be lost sight of in examinations in the dejections of persons in a cholera district, and that is that spirilla may be found in normal stools of healthy persons. As far as sanitary measures are concerned, these must be treated as cholera.

*Treatment.*—All cases of diarrhea should have appropriate treatment in the presence of cholera. In India it has been found of value to establish dispensaries, where medicines for diarrhea are gratuitously distributed. In this way cases of true cholera are likely to be discovered. In these islands as a further measure house to house inspection must be made, as the indifference and ignorance of the population will lead to concealment of the sick.

The drugs used in the treatment of preliminary diarrhea may be left to the individual preferences of the physician. Chlorodyne, or chlorodyne and brandy have been found especially useful; lead and opium pills, chalk, catechu, dilute sulphuric acid, etc., have all been used. With marked abdominal pain and little diarrhea morphine should be given hypodermatically, and when true cholera is established drugs by the mouth should be avoided as they are likely to increase the vomiting. Ice and brandy, or hot coffee, may be given in small quantities, and water in small sips may be drunk when they do not appear to increase the vomiting, which is extremely difficult to check, cocaine and calomel in minute doses—one-third grains—every two hours having been used with benefit in some cases.

The patient should be kept warm in bed and absolutely allowed to do nothing for himself; a warmed bedpan should always be used to receive the stools, and hot water bags packed around the sufferer; on failure of the pulse, hypodermic injections of ether, brandy, or strychnine should be given.

From the great loss of fluid, its replacement with normal salt solution by intravenous or interstitial injection is indicated. This solution is useless in small quantities; from 1 to 3 quarts should be given at a temperature of 100° F. Care should be taken that the solution does not become reduced in temperature before the last of it is injected, as is very likely, as it must be given slowly. The normal salt solution tablets may be used, or a 0.6 per cent solution of common salt in sterile water. The bag in interstitial injections should be elevated about 3 feet above the point of injection. The abdominal wall, flanks, or the loose tissue under the breasts are the best sites for such administration. Irrigations of the bowel have been recommended; as the seat of the disease is in the small intestines, a long, soft tube must be used, passed in gently as far as possible; 2 per cent tannic acid has supporters, as have also very weak solutions of permanganate of potassium.

In the reaction stage, if diarrhea persists, intestinal antiseptics with opium are of value, and tannin in rectal injections is also useful. For suppression of urine, hot cloths or dry cups over the loins and bland diuretics may be resorted to. The bladder must be watched and the catheter employed when necessary.

For some time after an attack of cholera the diet must be regulated just as after typhoid. Cholera typhoid is treated as is the typhoid condition due to any other disease.

#### VENEREAL DISEASES.

In the Army as a whole, with a mean strength of 92,491 men, there were reported during the calendar year 1901 13,911 cases of venereal disease, equivalent to an admission rate of 150.41 cases per 1,000 of strength. These cases furnished 161 discharges for disability, equaling 1.76 per 1,000 men, and 8 deaths, equaling 0.08 per 1,000. These rates are exceedingly high when we compare them with the mean

annual rates of the decade 1888-1897: Admission 70.60, discharge 1.71, death 0.03. The rates in the Philippines and in the United States during the past year did not differ much, but those in Cuba were high and those in Porto Rico very high, as may be seen from the following tabulations."

The chief surgeon of the Division of the Philippines reported that during the year:

The bimonthly physical examination has limited spread of venereal affections and its continuance should be enforced. Regulation of prostitution has been taken from the hands of the army by the establishment of civil government. While the segregation of syphilis is more necessary than the segregation of lepers, familiarity with the former disease has so much minimized the fear of it in the public mind and in America distaste to recognize the existence of the prostitute is so great, that little will probably be effected. Any fine or decrease of pay in a soldier suffering from venereal disease is to be deprecated as leading to concealment of such disease, which is most undesirable. If a soldier contracts syphilis the question becomes much more difficult than if he suffers from other venereal disease. The long period required for cure, danger to his companions and their fear of him, and not infrequent difficulties in the way of treatment necessitated by a soldier's duties, making it doubtful if it is worth while to retain him in the service. In fact, such a man seldom gives value received for the money the Government spends on him, and it would be better after treatment of the earlier lesions, but without return from the hospital to his company, to discharge him for disability not in the line of duty and give him transportation to his place of enlistment. As an alternative special hospitals may be established for such cases, but it is not fair to the well men of an organization to allow a syphilitic to return to them, living as they do so close together as to give countless chances for extragenital infection. Treatment for a sufficient period in the ordinary station hospital is impracticable.

#### ALCOHOLISM.

During the calendar year 1901, 2,018 cases were reported from the Army, with a strength of 92,491 men. This is equivalent to 21.82 admissions per thousand of strength, with 10 discharges for disability, equaling 0.1 per thousand, and 26 deaths, equaling 0.28 per thousand. This record compares favorably with that of the Army during the ten years 1888-1897, when the mean annual admission rate was 32.06, the discharge rate 0.04, and the death rate 0.21.

In the United States there were 696 cases, equaling 26.25 per thousand of strength, with 7 deaths and 7 discharges for disability, equaling a rate for each of 0.26 per thousand men. The admission rate in the Philippines was only 18.48, notwithstanding the sensational reports concerning the use of vino by our troops, the discharge rate 0.05, and the death rate 0.32. In Cuba the admission rate was 35.87, and in Porto Rico 27.75, but there was no death nor discharge from this cause in these islands.

The Chief Surgeon, Department of the Columbia, Maj. R. G. Ebert, surgeon, U. S. Army, states in his report that the habits of the men are not up to the standard which existed prior to 1898 nor to what they were under the old status of the post exchange.

The form in which alcohol is most commonly taken by natives of the Philippines is as vino or vino flavored with anise, the so-called anisado. Natives are rarely drunkards, and comparatively few of them take a great deal of alcohol, their indulgence being limited to an occasional liqueur glass of this vino or anisado. This moderation is practically never seen in soldiers, those who drink vino at all becoming

slaves to the habit. Consumption of this liquor has somewhat increased during the year.

Intemperance generally is somewhat more common than before the post exchange was abolished, the greatest amount being seen in men in Manila awaiting discharge or on their way home.

Vino is generally made from tuba, the juice obtained from the buds (unripe fruit) of the nipa palm. Tuba somewhat suggests pulque, and, like the Mexican drink, rapidly undergoes an acid fermentation, so that it must be used soon after collection, whether for drinking or for distillation. The majority of distilleries are therefore located in districts where the nipa palm grows, though vino is made to a less extent from sugar or cocoanut juice. Whichever is used the distilling process is the same and the resulting liquor is a bad one. Stills are of a primitive pattern, consisting of nothing more than a boiler and short worm. Under this boiler a very hot fire is built, bellows not uncommonly being employed to increase the heat. This heat is so great as to not only carry over all alcohols but steam, and the distillate contains less than 20 per cent of alcohol of a bad quality, as it is composed not only of ethyl alcohol, but the lower and higher alcohols—methyl, amylic alcohols, furfural, etc. This crude product sometimes undergoes a further purification in Manila by redistillation, but while a good alcohol can be made in this way this is not done commercially, and time is never given for changes which age or the various artificial processes simulating age cause.

Since American occupation a number of mixtures made from this impure alcohol have been manufactured with the various essences of brandy, whisky, rum, gin, etc., in numerous establishments, many being made actually while you wait. That these liquors are injurious, both from a physical and mental standpoint, needs no further proof. Vino causes a maniacal acute alcoholism, in which any crime may be committed, and after recovery from a debauch depression is greater than from ethylic alcohol. Repeated overindulgence may act as an exciting cause of insanity in those with a proper predisposition. Melancholia is more common than mania. Practically all habitues become perverted, entering into that state so often seen in morphine fiends of loss of responsibility and inability to distinguish between right and wrong.

The physical effects of such an alcohol are naturally severe and are exerted principally on the stomach, liver, and kidneys from the intensely irritating effects of the raw spirit.

The control of the sale and manufacture of vino is now in civil hands, but measures should be taken to protect the soldiers by making the penalty of selling vino to soldiers heavy, both fine and imprisonment being imposed, by granting no further distilling licenses to mixing shops and by stopping the production of spurious liquors from vino.

#### INSANITY.

One hundred and sixty-six cases of insanity were reported among the 92,491 men of the Army during the calendar year 1901. This is equivalent to 1.76 per thousand of strength, but as only 142 of these men, equivalent to 1.53 per thousand, were ultimately discharged as insane and committed to the asylum, the record of insanity is corre-

spondingly reduced. Thirty-four cases were reported from garrisons in the United States, and all of these, equaling 1.28 per thousand of strength, were discharged from service and committed to the Government Hospital for the Insane. One hundred and twenty cases, equaling 2.02 per thousand of the strength in the Philippines, came from those islands, but on arrival in this country it was found necessary to send only 100 of these, equaling 1.68 per thousand, to the United States Government Hospital. The home-coming sea voyage and the period of detention at the general hospital, Presidio of San Francisco, Cal., permitted of recovery in a number of instances. Eight cases were reported from Cuba, equaling 1.51 per thousand, but of these only 4 were discharged on this account. Four cases reported from Porto Rico gave the high admission rate of 3.47, all of whom were discharged and transferred to the Government Hospital for the Insane.

The 166 cases of the past year, equaling 1.76 per thousand men, may be compared with 2.72 during the year 1900, with 1.78 in 1899, and with 1.13, the mean annual rate of the decade 1889-1898.

At the general hospital, Presidio of San Francisco, Cal., a small detached building on the eastern portion of the hospital grounds is so fitted up and arranged as to accommodate about 15 patients, and is denominated the detention or insanity ward. It is under the charge of a medical officer, and has three Hospital Corps privates on day and two on night duty as attendants. The patients are kept under observation until their ward surgeon and a board of three medical officers, of which the ward surgeon is a member, are satisfied as to their mental condition, when those who are considered to be insane are recommended to the commanding officer for transfer to the Government Hospital for the Insane, Washington, D. C., while those considered normal mentally are returned to duty or discharged, as the case may be. The length of time required for this purpose is found to average about four to six weeks, and this period of time is usually quite sufficient for the ward to become filled with new arrivals.

One hundred and fifty-eight cases diagnosed as insane were received during the fiscal year—145 from the Philippines, 1 from Honolulu, and 12 from other sources.

During the year there were received 36 cases diagnosed as insane in which the diagnoses were not confirmed. It is probably true that most of these cases, if not all, were insane at the time that they were transferred to this hospital, but the majority of them came from the Philippine Islands, and the voyage home, together with more cheerful surroundings, resulted in a disappearance of the abnormal condition. Most of these cases are of the types of insanity in which the prognosis is good, and most of them were, without doubt, due to nostalgia and the depressing influence of campaigning in the Tropics.

#### BUBONIC PLAGUE.

In the Division of the Philippines bubonic plague, which in the year 1900 gave a total of 278 cases in the civil population, and in 1901 some 580 cases, has disappeared for the present. During the early part of the fiscal year three soldiers were attacked, one at Naic and two at Camp Stotsenburg. In cooperation with the Insular Board of Health

energetic efforts have been made to catch and kill rats, which in November and December showed about 2 per cent infected with plague, the percentage gradually declining until at the end of January no plague rats were found. In December a case of plague occurred in a teamster employed by the Quartermaster's Department in Manila, in the main corral on Malecon drive. The great precautions taken to prevent spread from this case were attended with success. The patient died after an illness of but a few hours. The observations of the year confirm the opinion previously formed that the plague is not a particularly contagious disease. The experience of Hongkong, from which city the disease has practically disappeared in three different seasons only to recur in the succeeding years, induces caution in the formation of an opinion whether Manila may be regarded as freed from plague or that a recurrence must be expected.

The following case was reported by Capt. Thomas W. Jackson, assistant surgeon, U. S. Volunteers, September 16, 1901, from Naic, Cavite Province, P. I.:

During the night of September 12 a native scout appeared at this hospital complaining of severe, cramp-like pains in the calves of both legs. He was given chloroform liniment as an application by the hospital steward and returned to his quarters, appearing the following morning, September 13, at sick call with a temperature of 103° F. Examination revealed a well-developed left femoral bubo of the size of a small lime, and as no venereal lesion was found he was immediately isolated.

Owing to his lack of knowledge of English and Spanish it was difficult to elicit a complete history, but by means of an interpreter the following facts were gathered: Julian Gonzales, about twenty years old, native scout, quartered with Company I, Fourth Infantry, returned with six other scouts from Magallanes September 9 in good health. He denied having chills, fever, or symptoms of malarial disease or other recent illness.

In the absence of a microscope, malaria could not be excluded. Quinine was administered, and was continued throughout the illness by mouth and needle. Bowels and kidneys performed their functions normally. The bubo increased in size during the first twenty-four hours, attaining a large size. The skin was quite tense, and the bubo moderately tender. At the end of twenty-four hours the bubo began to diminish in size and consistence, but showed no sign of suppuration. It has now almost entirely disappeared. A few inguinal glands and one cervical gland of the same side become slightly swollen, but there was no other manifestation of glandular enlargement. Upon the fifth day the temperature dropped to 99° F., but the afternoon temperature of the same day was 103° F. Upon the morning of the sixth day the temperature was slightly subnormal.

This case was seen twice in consultation by Maj. T. B. Anderson, surgeon, U. S. Volunteers, who declined to express a positive opinion.

District, department, and division chief surgeons were notified by telegram, and the civil health authorities in Manila wired to send an inspector.

Every precaution was taken to prevent contagion. The quarters in which the case occurred were thoroughly disinfected, and the patient was isolated in a tent in the middle of a large field, attended by a native scout, and visited by me three times a day. The commanding officer furnished a guard to prevent unauthorized communication with the patient.

In the absence of a microscopical diagnosis, I inclined to the opinion that the case was one of sporadic plague for the following reasons:

1. The appearance of a femoral bubo without venereal lesion or other near-by skin lesion coincident with acute febrile symptoms is most unusual in cases of malarial disease. In an experience of two thousand or more cases of malarial disease I have not met with such a combination of symptoms.
2. The onset and progress of the case suggested an acute infectious disease.
3. The recent occurrence in this town of five cases of bubonic plague, three fatal, readily accounted for the origin of the case, the infected buildings still remaining. It is now beyond the power and province of the medical officer to destroy these buildings, the town being under civil rule.
4. The temperature curve might be variously interpreted and was not inconsistent with plague.



September 18: Upon the afternoon of September 17 Dr. J. F. Halsell, representing the Manila Board of Health, made a blood examination of the case under suspicion. No malarial parasites nor pigment was discovered, but plague bacilli were found in several specimens examined, making positive the diagnosis of bubonic plague.

September 19: Case is now convalescent, but under strict quarantine.

According to the chief surgeon, Department of California, a few scattering cases of bubonic plague occurred at Honolulu, Hawaiian Islands. The disease was confined chiefly to the Asiatic and Japanese sections of the city, although sporadic cases made their appearance in various localities. The premises occupied by a case of the disease after its final disposition were thoroughly disinfected, or whenever practicable destroyed by fire.

The troops were not attacked by the disease, due in part to feeble susceptibility and in part to the effective measures taken to prevent the extension of the infection.

#### BERI-BERI.

An elaborate report on beri-beri as it occurred among native prisoners in the military prisons at Lingayen, province of Pangasinan, was published, pages 236-239 of the last annual report of the Surgeon-General of the Army. During the past year only one report on this subject has been received. This came from Malagi Island, Laguna de Bay, Lieut. S. M. Waterhouse, assistant surgeon, U. S. Army, dated June 20, 1902. On January 20, 1902, Company H, Twenty-eighth Infantry, arrived at Malagi Island with 100 native prisoners and a large amount of supplies. At that time the island was absolutely uninhabited and presented no indication of former occupancy by men, with the exception of one group of banana trees and a small quantity of crushed stone on one part of the shore. The island is about 120 acres in extent, rising at its highest part to about 100 feet above the water level and having everywhere a good natural drainage. On February 28, 1902, among a fresh arrival of prisoners, two cases of beri-beri were discovered. They were immediately isolated.

After this cases continued to appear every few days; and as the authorities refused to allow their removal, the isolation camp continued growing until it contained 24 patients in all stages of the disease. Upon repeated requests by the surgeon, authority was finally given to remove these patients from the island. A careful examination was made of all the prisoners, and 59 more cases were discovered and immediately liberated. Even after this occasional cases appeared on sick report, and a third examination of the entire prison population was made, resulting in the discovery of some 40 additional cases in the earlier stages of the disease. Occasional cases appeared from time to time upon the sick report until the final release of all prisoners on June 4, 1902.

Lieutenant Waterhouse considered that diet had little to do with the propagation of the disease. He says:

The theory of germ propagation and of infection by personal contact and by place infection appears to me to account more satisfactorily for the spread of the disease. To begin with we had 100 prisoners hard at work here for a month and a half without the slightest symptom of the disease; then two cases of beri-beri were introduced, and after that the spread was steady. Again, it was noticed that most of the cases came from one set of quarters, the first set erected, and that the number of cases from that barracks decreased to a marked degree after scrubbing the bamboo floor with a 4 per cent solution of chloride of lime.

Efficient isolation was impossible, owing to the necessarily limited area of the stockade. Most writers claim that beri-beri is due to old, damp buildings, made of stone or of brick, but in this case the conditions were just the reverse, as we had new, airy, spacious barracks, located on high, well-drained ground with a constant stiff breeze and no flies or mosquitoes, conditions apparently ideal for health and the

more marked as this epidemic occurred during the dry season, whereas the rainy season is said to be especially favorable to such outbreaks.

The fact that the natives go barefooted and that some of the cases appeared in unfloored tents makes one incline strongly to the possibility of place infection occurring from the ground. Another noticeable fact was that of prisoners sleeping next to one another; if one developed beri-beri the other was very likely to do the same.

From the fact that none of the prisoners had developed beri-beri prior to its introduction here from a known infected point, of the apparent spread by contact, and of the slight influence which diet appeared to exert over it, the presumption is that we are dealing with a disease of microbic origin, prone to attack those in a run-down and mentally depressed condition, and one which is conveyed by fomites and by close personal contact.

That it is not very easily contracted unless all the conditions are favorable to its spread is shown by the complete freedom from infection of the entire white population of the island.

#### INJURIES.

During the calendar year 1901 there were entered on the reports of sick and wounded of the Army, mean strength 92,491, 17,736 cases, or 191.77 per thousand of strength, with 407 men discharged for disability and 403 having a fatal termination, equivalent, respectively, to 4.40 and 4.36 per thousand of the strength. Of the admission rate, 191.77 per thousand, 147.43 was contributed by the few, mostly native, troops in Porto Rico; 351.90 by the command in Cuba; 168.33 by the troops in the Philippines and China, and 250.08 by the men serving at the home stations.

The large rates in the home stations may be explained on the general principle that in time of peace men report for admission to sick report and excuse from duty for slight injuries which would not lead them to do so if in service of an active or quasi active character. The small rate in Porto Rico may be attributed to the fact that the troops were natives of the island and did not report sick for slight injuries.

One hundred and thirteen deaths from drowning were reported, equivalent to 1.22 per thousand of strength; 90 of these, equivalent to 1.47 per thousand of strength, occurred in the Philippines, and 16, equivalent to 0.60 per thousand, in the United States.

Exhaustion from exposure and fatigue caused the entry of 370 cases on sick report, equivalent to 4 per thousand of strength, only one case fatal. In the United States 85 of these cases occurred, equivalent to 3.21 per thousand; in Cuba 6, equivalent to 1.13; in Porto Rico 1, equivalent to 0.87, and in the Philippines 278, equivalent to 4.67, but the only fatal case occurred in the United States.

*Heat stroke.*—Two hundred and seven cases were reported, equivalent to 2.24 per thousand. Of these 9 died and 5 were discharged for disability. It is to be noted that the admission rate for this casualty is greater in the United States than in the tropical islands. In the islands and China there were 120 cases, equivalent to 1.82 per thousand of strength, and of these cases 8 died and 4 were discharged, while in the United States there were 87 cases, equivalent to 3.28 per thousand, but of these only 1 was fatal and 1 terminated in discharge. No case of heat stroke was reported from Porto Rico and only 1 from Cuba.

Of hernia 484 cases were reported, 138 cases, or 5.20 per thousand of strength, among the troops serving in the United States, and 266, or 4.03 per thousand, among those serving outside of the limits of the continent. Eighty-six of these cases were discharged for disability.

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Of the injuries constituting 191.77 admissions per thousand of strength of the Army, 143.69, or three-fourths of the total, were represented by cases of abrasions, contusions, sprains, lacerated and incised wounds.

None of these cases presented any notable mortality except the incised wounds, which in the Philippines gave 82 deaths, equivalent to 1.24 per thousand of strength. In the United States 3 deaths, equivalent to 0.11 per thousand of strength, resulted from incised wounds.

Most of these wounds in the Philippines were received in action. Sixty-eight men were killed, a larger number than died by gunshot. Sixty-one fell by the bolo, 4 by the dagger, and 1 each by the bowie knife, bamboo spear, and club, while 110 were wounded by similar weapons. Eight of these 110 cases were fatal: Two bolo fractures of the cranium; 1 dagger fracture of the spine, said to have been fatal from septic cerebro-spinal meningitis; 3 wounds in which the thorax was penetrated; 1 bolo fracture of the forearm, with death from hemorrhage, and 1 flesh wound of the thigh, with death from septicæmia and secondary hemorrhage.

#### GUNSHOT INJURIES.

At the close of the last annual report there remained under treatment 25 cases of gunshot wounds, 15 of which were received in action and 10 not in action. Of the 15, 2 were returned to duty, 11 were discharged for disability and 2 on account of the expiration of their term of service. Of the 10 cases which were not battle wounds 3 were returned to duty, 2 left the service by expiration of term, and 5 were discharged for disability.

During the year 1901, 104 men were killed by gunshot, only 46 of whom met their death in action. Fourteen of the deaths were accidental, 33 suicidal, and 11 homicidal. Thirty of the suicides and all the homicides occurred among the 81,885 regular troops; 3 of the suicides among the 10,606 volunteers.

Besides the 104 men killed outright by gunshot there were 475 cases of gunshot injury brought to the hospitals for treatment. This number of cases is equivalent to 5.14 per thousand of strength, and of these 0.53 per thousand were discharged for disability and 0.48 died, leaving 3.82 recoveries per thousand of the strength.

Of the 475 cases of gunshot injury that were brought to the hospitals during the year only 146 were received in action, but 273 of the remainder were reported as having been incurred in the line of duty, 44 not in the line of duty, 6 suicidal, and 6 homicidal. The gunshot casualties of battle amounted therefore to 46 killed and 146 wounded, a total of 192, the killed constituting 24 per cent of those struck; but as 15 of those received into hospital died from the effects of their injuries, the deaths among those struck constituted a little over 31 per cent.

Of the total number, 475, of wounded men received into hospital, 44 died from the effects of their wounds and 1 from chloroform administered for amputation of the leg, 49 were discharged on certificates of disability, 353 were returned to duty, while 9 remained under treatment at latest reports. Two of the wounded men were reported as missing in action and 19 as discharged by order of expiration of term.

Ten cases of fracture of the cranium were reported, 1 of which was returned to duty, 3 were discharged, and 6 terminated fatally. In one of the cases which recovered a portion of the roof of the right orbit was removed. In one of the fatal cases fragments of bone and a portion of a bullet were removed from the brain, and in each of two other cases, also fatal, fragments of bone and lacerated brain tissue were removed.

Five cases of fracture of the facial bones were taken into hospital, 2 of which were fatal. In one of these an extensive operation was performed, but the patient died of septicemia.

Twenty-two cases of penetration of the thorax were reported, 7 of which were fatal, 12 ended in return to duty, and 3 in discharge for disability. Much bloody liquid was removed from the pleural cavity and  $2\frac{1}{2}$  inches from each of the third, fourth, fifth, and sixth ribs were removed in one case. An intercostal artery was ligated and the pleural cavity aspirated in another. A bullet was removed in a third case, and hot sterile normal saline solution was used in a fourth case, all of which ended favorably.

Seventeen cases of penetrating wound of the abdomen were reported, 13 of these were fatal, 1 was terminated by discharge for disability, 1 by muster out, and 2 by return to duty. Laparotomy was performed in 2 cases and nephrectomy and suture of the colon in 1 case, all fatal.

Six cases of fracture of the arm were reported, 1 fatal. In this case both arms were shattered by the premature explosion of a shell. A double amputation was performed.

Ten cases of fracture of the forearm appear on the reports. One of the patients died, 5 were discharged for disability, 1 by order, and 3 were returned to duty. Death in the fatal case was from septicemia after amputation.

Of 2 cases of fracture of the wrist joint, 1 died, but the death was attributed less to the wound than to exhaustion from profound nervous depression and mental worry.

Among 59 flesh wounds of the thigh there were 3 deaths, caused in 1 by tetanus and in 2 by hemorrhage.

One of the 6 fractures of the upper third of the femur proved fatal from shock. In one of the recoveries a secondary amputation through the neck of the femur was performed.

Of 5 fractures of the middle third of the femur, 2 proved fatal, 1 from shock after amputation, the other from septicemia; 1 was discharged for disability, 1 was returned to duty, and 1 remains under treatment at latest reports.

Of 2 fractures of the lower third of the femur, 1 was discharged for disability and 1 remains under treatment. A secondary amputation was performed in each of these cases.

Eight cases of fracture of the kneejoint were reported, 4 of which proved fatal, 2 ended in return to duty, and 2 in discharge. In 1 of the cases of recovery a secondary excision was performed. Death in 1 case was from tetanus and in 3 cases from septicemia and shock after resection in 1 case and after secondary amputation in 2 cases.

Of 16 cases of fracture of the leg, 7 were returned to duty, 6 were discharged for disability, 2 by order, while 1 continues under treatment. Amputation was performed in 4 of these cases. In a flesh wound of the leg in which amputation was considered necessary, death occurred from chloroform narcosis. Amputation was performed also in a case of fracture of the tarsus and metatarsus.

## THE GENERAL HOSPITALS.

## ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

In the officers' division of this hospital there remained under treatment June 30, 1901, only 1 officer, he belonging to the Regular Army. During the fiscal year ended June 30, 1902, there were admitted for treatment 21 officers on the active list of the Army, 4 on the retired list of the Army, 3 on the active list and 2 on the retired list of the Navy, with 1 belonging to the United States Marine-Hospital Service, making a total of 32, including the 1 remaining over from last year. Of these 32 officers, 27 were returned to duty or to their residence, 1 died, and 4 remained under treatment June 30, 1902. The 27 officers who recovered sufficiently to resume their duties or were much benefited were under treatment from 6 to 178 days, giving an average of 69.25 days. The maximum number was 14, in the month of March, 1902. During August and October, 1901, no officer was at the hospital under treatment.

In the enlisted men's division there remained under treatment June 30, 1901, 53 enlisted men of the Army and 15 ex-volunteers, and as 316 such men were admitted during the year there were 384 men to be accounted for, as follows:

Discharged on certificates of disability in line of duty.....	42	
Discharged for disability not in line of duty.....	27	
Discharged without honor.....	2	
Discharged by expiration of term.....	16	
Discharged by order.....	1	
Deserted.....	2	
Retired.....	1	
Transferred to other hospitals.....	3	
Died.....	2	
Returned to duty.....	108	
		204
Ex soldiers and sailors of the United States who left the hospital during the fiscal year:		
Cured or improved.....	85	
Not benefited.....	38	
		123
Remaining in hospital June 30, 1902:		
Enlisted men of the Army and Navy.....	50	
Ex soldiers and sailors.....	7	
		57
		384

The admissions during the fiscal year ended June 30, 1902, were distributed as to disease as follows:

Various forms of rheumatism.....	178
Diseases of the digestive organs.....	35
Diseases of the nervous system.....	30
Malarial diseases.....	7
Other diseases.....	66
	316
Total.....	316
Number of cases treated during the fiscal year 1901.....	438
Number of cases treated during the fiscal year 1902.....	345

## UNITED STATES GENERAL HOSPITAL, FORT BAYARD, N. MEX.

See under the heading "Consumption," p. 68, supra.

## UNITED STATES GENERAL HOSPITAL, WASHINGTON BARRACKS, D. C.

During the fiscal year the general hospital at Washington Barracks has served also as the post hospital at that post.

During this period 544 cases were treated, 434 medical and 110 surgical. Three of the former proved fatal. Ninety-one operations were performed in the 110 surgical cases, 2 of which ended fatally.

\* \* \* \* \*

As the officer commanding the hospital also served as professor of military surgery in the Army Medical School, clinics were given every Saturday during the school term, which were attended by class sections, thus familiarizing the student officers with the surgical technique adapted to military hospitals. As the hospital is equipped with Röntgen ray apparatus, this was used in instructing the student officers in the theory and practice of Röntgen ray work.

During the year practically the same course of instruction has been carried on with the company of instruction attached to the hospital as in the previous year. Four hundred and forty-five enlisted men have joined the company of instruction during the fiscal year, making a total of 2,462 enlisted men who have been instructed in the company since the establishment of the general hospital in 1898.

The officer in command of the company of instruction also served as instructor in first aid and Hospital Corps drill in the Army Medical School during the last session, thus enabling the company of instruction to be utilized for the purpose of instructing the student officers not only in drill, but in the establishment of field hospitals and in familiarizing them with the equipment of the Medical Department both in garrison and in the field.

The necessity for a general hospital in or near the city of Washington has been so great that in reply to a communication from the Adjutant-General's Office, dated July 8, 1902, requesting to be informed of the needs of the service for the expenditure of the appropriation of \$200,000 for the United States general hospitals under the appropriation act of the present year, the Surgeon-General stated that the \$200,000 appropriated would be required for the construction, repairs, and expenses connected with the general hospitals at Fort Bayard, N. Mex., the Presidio of San Francisco, Cal., and Washington Barracks, D. C.

The construction of a new general hospital in the District of Columbia is necessary to take the place of the present small hospital at Washington Barracks. The interests of the service would be promoted by maintaining a general hospital in or near the city of Washington equipped with all modern appliances for the best medical and surgical work. In regard to the location of such a hospital it is recommended that Congress be asked to grant authority to establish it on the lands of the United States Soldiers' Home, a suitable place for which may be found just within the southern boundary and near the south gate of these grounds. If it is not deemed advisable to recommend this proposition, a site may be secured by the purchase of lands fronting on Connecticut avenue beyond Rock Creek bridge or elsewhere in

the District. About 25 or 30 acres would be required for the hospital and for the hospital school of instruction which should be associated with it.

In view of section 1136 of the Revised Statutes, which forbids the erection of any permanent building at a cost of more than \$20,000 without special authority from Congress, I respectfully request that the necessary authority be asked for to expend \$140,000, or as much thereof as may be necessary, for the erection of this hospital.

A general hospital is needed in or near this city—

(a) For the treatment of special cases.

Cases continually arise in the military service for which post hospitals do not furnish the necessary facilities for treatment. These cases are mainly difficult surgical cases requiring treatment by a specialist. A general hospital should have all facilities and should have attached to it medical officers having special knowledge and experience.

The general hospital is necessary also for the observation of officers ordered before a retiring board, as the careful examination which may be given to an officer in a fully equipped hospital will more efficiently determine his physical condition than the examination made at a post hospital.

(b) For instruction in connection with the Army Medical School.

In England the Royal Victoria Hospital, which cares for disabled men returned from all the outlying colonies, is practically an attachment to the Army Medical School at Netley, but our Army Medical School has at present no such great advantage as an associated hospital for army diseases from distant and tropical service.

A general hospital would enable student officers to become familiar with the methods of administering general hospitals, to instruct them in methods of hospital inspection, the use of the Röntgen ray apparatus and other diagnostic apparatus, and to instruct them in medical and surgical procedures as they are adapted to the military service.

It would give facilities for the practical training of men in the Hospital Corps from the company of instruction in Hospital Corps work. A general hospital with its varied medical and surgical work is especially adapted to practical training. It would place a company of instruction of the Hospital Corps at the disposal of the Surgeon-General for the instruction of student officers in Hospital Corps drill, the pitching of field hospitals and familiarize them with Hospital Corps equipment and medical supplies.

(c) For extension in time of war.

With a general hospital established and a company of instruction attached thereto, everything is in readiness at the outbreak of war to immediately extend the institution to any desired size and to accommodate any desired number of patients. This without the trouble, inconvenience, and delay incident to establishing such a hospital *de novo*.

The functions of a general hospital are so much more extensive and so different from those of a post hospital that they can not be properly conducted in connection with a hospital having post functions. In a post the medical officers and enlisted men are all directly under the command of the local commander, and all official communications and business have to be transacted through the department to which the post belongs. The functions which would particularly obtain with a general hospital in the city of Washington are such that the establish-

ment should be directly under the control of the Surgeon-General and Secretary of War. Patients and officers sent to the hospital for special treatment can be brought in direct touch with the War Office. The assignment of men to the company of instruction for a course of instruction for the Hospital Corps and the sending of men, when instructed, to other posts, can be best managed direct and not through a department commander. Also, the institution being in direct communication with the Surgeon-General can be properly used for instruction in connection with the Army Medical School and its work can be adapted to the school curriculum which can not be satisfactorily done in a hospital under post control.

It is believed that the interests of the service would be subserved by attaching the attending surgeon in the city of Washington to the hospital as a visiting surgeon, so that he might have at his disposal a service hospital in which to treat those of his cases which require hospital treatment, with a minimum of expense to them. This would add to the number of cases in hospital and so increase its efficiency for training. At present the attending surgeon sends many cases to the local civil hospitals, and it is thought that the military service should hold control of its own cases.

GENERAL HOSPITAL, PRESIDIO OF SAN FRANCISCO, CAL.

A full report of the organization and management of this hospital was published in the reports of the Surgeon-General for the fiscal years 1900 and 1901.

The work done by this hospital during the past year has been of an exceedingly gratifying and satisfactory character. Estimates for material and labor have been promptly approved. With some minor additions this hospital can be made practically perfect, and certainly equal to the best of similar institutions in civil life.

The steam laundry connected with the hospital is in good working order and does all the necessary work for the various post hospitals in and around San Francisco and for the hospitals of transports.

The following shows the amount of work done during the year ended June 30, 1902:

In hospital June 30, 1901 .....	139	
Admissions during the year .....	4,551	
		<hr/>
Returned to duty .....		2,795
Rate per 1,000 of admissions .....	614.00	
Rate per 1,000 last year .....	573.00	
Discharged for disability .....		401
Rate per 1,000 of admissions .....	88.00	
Rate per 1,000 last year .....	181.00	
Deaths from all causes .....		99
Rate per 1,000 of admissions .....	21.80	
Rate per 1,000 last year .....	33.58	
Deserted .....		48
Sent to Government Hospital for the Insane .....		130
Sent to the general hospital, Fort Bayard, N. Mex .....		147
Sent to the general hospital, Hot Springs, Ark .....		81
Otherwise disposed of .....		587
Remaining in hospital June 30, 1902 .....		402
		<hr/>
		4,690



Of the total admissions, 2,413 came from the Philippines and 2,138 from camps and garrisons in the United States.

Average monthly number of patients in hospital, 480.

Deaths were due mainly to chronic dysentery from the Philippines and from broncho-pneumonia. Although the former disease caused the greater number of deaths, the rate of mortality has really been low when the number of cases received is considered. The large death rate from broncho-pneumonia was a result of an epidemic of measles which prevailed among recruits en route to the Philippines.

During the year the work done in the pathological laboratory of the hospital under the superintendence of Contract Surg. Charles F. Craig, U. S. Army, consisted of the following:

Examinations of blood .....	3,518
Examinations of urine .....	4,395
Examinations of sputa .....	1,221
Examinations of feces .....	1,319
Widal tests .....	63
Malta fever tests .....	14
Blood counts .....	123
Cultures .....	52
Sections from post-mortem material .....	542

Of the 3,518 examinations of the blood for malarial parasites, 175 proved positive. Of the positive cases 134 were due to the estivo-autumnal parasites, 33 to the tertian parasites, and 8 were combined infections. Of the 134 estivo-autumnal infections, 113 were due to the tertian estivo-autumnal parasite, 11 to the quotidian estivo-autumnal parasite, and 10 were combined infections or infections in which the type of parasite could not be exactly determined. The examinations of the blood during this year for malarial parasites have shown a marked decrease in the number of cases of malaria returned to this hospital from the Philippines.

Most of the 123 blood counts were made in cases of secondary anæmia, following either dysentery or malarial fever. The lowest blood count was 855,000 red cells to the cubic millimeter. This occurred in a case of pernicious secondary anæmia, following estivo-autumnal malaria, from which the patient died. Of the 123 counts, 55 were from cases suffering from secondary anæmia following malarial fever, and the others from cases of dysentery and diarrhea.

The urine was examined in all cases admitted to hospital. In cases which showed no pathological conditions the urine was not again examined unless requested by the pathologist or the medical officer in charge.

Of the 1,221 specimens of sputa examined for the bacillus of tuberculosis, 143 proved positive.

Of the 1,319 specimens of feces examined for the amœba of dysentery, 228 proved positive.

There were 63 Widal tests performed during the year. An investigation was carried on as to the etiology of these cases of typhoid, as it was thought that some of them might have originated in the camps at the Presidio. It was found, however, after thorough investigation that they were all contracted at other posts throughout the United States or in the Philippine Islands, and that none of the cases of typhoid sent to this hospital have originated at the Presidio.

*Malta fever.*—Fourteen tests were made in this hospital during the

year for Malta fever by the agglutination reaction, of which 4 were positive.

Medical officers of the English army were the first to draw attention to a disease prevailing in Malta and other Mediterranean stations, possessing many of the symptoms of typhoid, but differing from that disease in important respects.

In 1816 Burnett<sup>a</sup> described very fully this disease, but regarded it as a remittent malarial fever. This view of the character of the fever was adhered to for many years, and it was not until 1878 that the distinction was clearly drawn between remittent malarial fever and Malta fever.

When first described the disease was supposed to be peculiar to the island of Malta, hence the name, but continued observation has proved that it is widespread throughout tropical and subtropical regions.

Thus Donaldson<sup>b</sup> describes cases in Gibraltar, Tomaselli in Sicily, Patterson in Constantinople, Oliver<sup>c</sup> along the banks of the Danube, Veal<sup>d</sup> in Cyprus, Musser<sup>e</sup> and Cox<sup>f</sup> in Porto Rico, Chamberlain,<sup>g</sup> Curry,<sup>h</sup> and Strong<sup>i</sup> in the Philippines.

Various opinions were held by observers as to the etiologic factor in the production of Malta fever, but it was not until the painstaking researches of Bruce were published in 1887 that anything positive was known. Bruce<sup>j</sup> demonstrated the cause of the disease to be a micrococcus, to which he gave the name *Micrococcus melitensis*.

Malta fever is generally a fever of long duration, subject to frequent relapses, presenting a most irregular and confusing temperature course, accompanied with severe pain in the joints, constipation, and profuse perspiration, and often followed by arthritic pains, with or without swelling of the joints. An enlarged and tender spleen is very common. Diagnosis of the disease has heretofore presented many difficulties, as it resembles in many instances typhoid or remittent malarial fever; and even with the help of the microscopical examination of the blood and the Widal test, the distinction between these diseases can not always be made. In 1897, however, Wright, of the Royal Army Medical School, England, discovered that the blood serum of a patient suffering from Malta fever will agglutinate the *Micrococcus melitensis* in very dilute solution, and that this agglutination test is most delicate and can be depended upon absolutely in diagnosis.

In Wright's method of using the serum test sedimentation tubes having a diameter of less than 1 millimeter and an agar culture of the micrococcus are used. A salt solution suspension is made, and this solution is used to dilute the blood serum, the dilution varying according as the test is desired to be more or less delicate. It makes no dif-

<sup>a</sup>Burnett: Practical Account of the Mediterranean Fever, London, 1816.

<sup>b</sup>Donaldson: Army Statistical Report, 1839.

<sup>c</sup>Oliver on "Danubian fever," Lancet, Vol. II, 1892, p. 1359.

<sup>d</sup>Veal: Report on Cases of Fever from Cyprus, Malta, and Gibraltar. Army Medical Department Reports, England, 1879.

<sup>e</sup>Musser: Philadelphia Medical Journal, December, 1898.

<sup>f</sup>Cox: Report of Surgeon-General, U. S. A., 1899, p. 285.

<sup>g</sup>Chamberlain: Report of Surgeon-General, U. S. A., 1900, p. 226.

<sup>h</sup>Curry: Report of Surgeon-General, U. S. A., 1900, p. 226. Also, Journal of Medical Research, Vol. VI, No. 1, July, 1901, pp. 241-248.

<sup>i</sup>Strong: Report of the Surgeon-General, U. S. A., 1900, p. 227.

<sup>j</sup>"Note on discussion of microorganisms in Malta fever," Practitioner, Vol. XXXVI, p. 161. Also, "Observations on Malta fever," British Medical Journal May 18, 1889.

ference whether the micrococci are alive or dead, the agglutination reaction takes place as well with one as the other.

*Curry's method.*—Curry's method of performing the test, as described by him ("Malta fever," Journal of Medical Research, vol. 6, No. 1), differs somewhat from that of Wright, and is thus described by him:

I used common glass tubing about 3 to 4 mm. in diameter, and made the observations microscopically, and as a control made microscopical observations of drops of the fluid withdrawn by means of a platinum loop from the top, middle, and bottom of the tube. Tubes 7.5 cm. long and 3 to 4 mm. in diameter were made from glass tubing, and the bottoms were drawn out to a long, sharp point. These were sterilized and plugged with cotton in the dry sterilizer. Salt solution suspensions were made according to the method used by Wright. Bacteria were killed by heat at 60° C. for fifteen minutes and 0.5 per cent carbolic acid added. As a routine method one drop of blood serum was mixed with 19 drops of normal salt solution, then equal parts of this mixture with the salt suspension of the culture of the *Micrococcus melitensis*, and placed in the small tubes of the sterile pipette, making a dilution of 1-40. A reaction was called positive and complete only when, in addition to the precipitation of the bacteria in the bottom of the tube, the supernatant fluid became clear.

The method of Dr. Charles F. Craig is thus reported by him:

In performing the serum test for Malta fever I have used practically the same method as that for the Widal test. A pure culture of the micrococcus, either upon agar or in bouillon, was used. The test may be performed either with the fresh serum or with a dry drop of blood, the latter being used preferably, as it is simpler and easier to procure. A drop of blood is secured upon a glass slide and diluted with enough sterilized water to dissolve it. A graduated pipette of very small caliber is used to make the dilution with the micrococcus. Having dissolved the drop of blood, a known portion is taken from it by the pipette and placed upon a clean slide. This is then diluted with a measured quantity of the bouillon culture, or with a suspension of the agar culture made with sterilized water. The pipette is so graduated that a dilution can be made from 1-10 to 1-150. A cover glass is then placed over the mixture and this examined microscopically. In using the agar suspension the drop should be first examined, so as to be sure there is no agglutination present before the blood is added. Preferably I have used a dilution of 1-75, although the agglutination reaction has been obtained with dilution as high as 1-25, immediately. This method is easy of performance, all that is needed being the culture, the special graduated pipette, the cover glasses and slide, and the drop of blood. The method was used in all cases at the General Hospital, Presidio of San Francisco, Cal., and controls with a serum of other diseases made at the same time.

The literature relating to Malta fever among soldiers of the United States Army is very limited. The first case described was that of Dr. Musser, of Philadelphia, in the Philadelphia Medical Journal, December, 1898. His case was that of an officer who contracted the disease in Porto Rico, and he was the first to draw attention to the fact that the disease was probably endemic in that island.

In the report of the Surgeon-General of the Army for 1899 Lieut. Walter Cox, assistant surgeon, United States Army, described a case occurring in Porto Rico and observed by him. The patient was a private of the Hospital Corps, 30 years of age. He came under observation January 14, 1899. He contracted the fever in the guardhouse of an old Spanish barracks, the fever commencing January 11, 1899. He complained of pain all over the body, especially in the bones and joints. He had two chills on successive days but none afterwards. This was at the commencement of the illness. The appetite was poor and the bowels were first loose and later constipated. The temperature curve showed daily remissions and reached normal gradually. The morning temperature for a considerable time reached the normal point, but was 1°, 2°, or 3° above normal toward evening. He was discharged from the hospital on April 3, after a week of normal temperature, but was

readmitted April 7, suffering again from fever. This attack was similar to the first. The blood was examined repeatedly for the malarial parasites as well as for the Widal reaction. A test with a culture of the *Micrococcus melitensis* showed a marked agglutination in dilution as high as 1-60. Lieutenant Chamberlain, assistant surgeon, United States Army, while on duty on the hospital ship *Relief* at Manila, P. I., observed 2 cases of the disease in soldiers, which were reported to the Surgeon-General of the Army. The men were in adjacent beds and both presented mild attacks. The temperature curve was irregular, being neither markedly remittent nor undulating. The cases were at first diagnosed as malarial fever, but the Malta fever reaction was obtained at the laboratory of the First Reserve Hospital and both were found positive. Examination of the blood for malarial parasites and the use of the Widal test both resulted negatively. Curry and Strong in 1900 reported cases occurring at the First Reserve Hospital. Strong performed an autopsy upon a man who had died from continued fever of long duration. The post-mortem showed that it was neither typhoid nor malaria, and cultures from the case made by Curry resulted in the finding of the *Micrococcus melitensis*. Inoculations into monkeys produced the typical symptoms of Malta fever. While performing these experiments Strong became infected and suffered from a typical attack of the fever. In another case the condition was discovered, post-mortem and cultures were obtained of the microorganism. At this time two cases were observed in the wards of the hospital which gave the reaction with the micrococcus and were undoubtedly cases of Malta fever.

The most valuable report of Malta fever occurring in soldiers of the Army is that written by Curry and published in the *Journal of Medical Research*, volume 6, No. 1. In this report Curry describes the cases which came under his observation both in Manila and in the Army and Navy General Hospital at Hot Springs, Ark. Besides the 4 cases of Malta fever observed in Manila, he observed in all 8 cases of Malta fever in the hospital at Hot Springs. Four of these were described in extenso, the notes of the other 4 cases occurring in a note at the end of the report. All four of the latter cases were in a convalescent stage, the prominent symptoms being those of articular rheumatism, constipation, and frequent profuse sweatings. These cases were diagnosed as articular rheumatism. Of the four cases described more fully all gave a marked serum reaction with the *Micrococcus melitensis* when in a dilution as high as 1-300. None of the cases presented the symptoms found in the acute stage. The symptoms complained of were pains in the articulations, constipation, and sweating, and all showed anæmia. These cases were all supposed to be suffering from chronic articular rheumatism.

In his recapitulation Curry says:

We have four cases of what was thought on admission to be chronic rheumatism. These cases have not improved under treatment nor by change to this favorable climate. Neither antirheumatic nor antimalarial treatment has benefited these men. In spite of treatment and of favorable conditions repeated and more or less regular recurrence of acute rheumatic pains and swellings and of fever have taken place. These conditions have lasted a long time, for six months, the shortest, to sixteen months, the longest, of the series. The other prominent symptoms have been anæmia, profuse sweating, and constipation. The blood examinations for malarial fever and for typhoid were negative, save in the case of one who had had severe typhoid two years ago. The clinical history of these cases corresponds with that of Malta fever, and the result of the serum test with the micrococcus makes it certain that the diagnosis of Malta fever in these cases is a correct one.

Dr. Craig concludes his report as follows:

The important lesson to be learned from a study of the literature of Malta fever occurring in the United States Army is that the conditions are not easily recognized clinically, and may be attributed to typhoid, malaria, or in the chronic stages to articular rheumatism. This being so, the great value of a microscopical examination of the blood and the performance of the serum test is at once proven. None of the cases observed by me were diagnosed as Malta fever, and in only one of them was there any suspicion of the occurrence of this disease. The two cases presenting the chronic symptoms would, in all probability, have been transferred to Hot Springs, Ark., for antirheumatic treatment, while in the two cases presenting the acute symptoms the patient would probably have been treated for either typhoid fever or malaria. In fact, in cases when, on account of finding malarial parasites at different times in the patient's blood, the treatment has been altogether that for malaria, and had a diagnosis of Malta fever been made more quickly much discomfort would probably have been saved the patient.

The following conclusions may be drawn from the study of these cases:

- (1) There occurs in the Tropics a fever which may resemble in its acute stage either typhoid or malaria and in its chronic stage articular rheumatism, caused by the *Micrococcus melitensis*.
- (2) There is no pathognomonic symptom of Malta fever. The symptoms are so inconstant and confusing that no one of them can be said to be typical of the disease.
- (3) A differential diagnosis of this fever is almost impossible in the majority of cases without the aid of the microscope and the serum test.

#### FIRST RESERVE HOSPITAL, MANILA, P. I.

During the period July 1, 1901, to April 15, 1902, 2,999 cases were treated in this hospital, besides a large number examined and assigned elsewhere, this being the distributing hospital of Manila. Maj. William H. Arthur, surgeon, U. S. Army, was in command.

The hospital buildings, 23 in number, are much in need of repair. An allotment of \$2,600 was used during the year in fitting up a pathological laboratory and receiving ward, in remodeling kitchens and offices, building a new kitchen and porch for officers' ward, bathroom and water-closets for hospital corps quarters, and a covered passage-way from the surgical ward to the operating room. The addition of a small receiving and observation ward at the main entrance has been very useful. Plague, Asiatic cholera, smallpox, measles, and mumps have been detected at different times in this ward, and proper disposition made of them without exposing the other patients in a crowded ward to risk of infection. It is small, bare, and easily disinfected. The laboratory was opened February 26, 1902, and from that time to April 15, 1902, 406 examinations were made, as follows:

*Blood*.—One hundred and sixteen examinations, of which 77 were found positive for malarial parasites and 39 negative.

*Stools*.—One hundred and thirty-six examinations with results as follows: Amebæ, 37 cases; ascaris lumbricoides, 22 cases; ankylostomum duodenale, 1 case; larvæ, musca vomitoria, 1 case.

*Urine*.—Eighty-three examinations with results as follows: Albumen, 13 cases; sugar, 17 cases; tubercle bacilli, 1 case; gonococci, 5 cases; normal, 47 cases.

*Sputum*.—Thirty-six examinations for tubercle bacilli; 3 proved positive.

*Pus, liver*.—One examination for amebæ; result, positive.

*Pus from eye*.—Three examinations for gonococci, all proving positive.

*Pus urethral*.—One examination for gonococci; result, positive.

#### HOSPITAL NO. 3, MANILA, P. I.

This hospital is situated in Ermita district, just beyond the city walls and about 300 yards from the bay. It consists of 7 one-story wooden buildings having a capacity of 225 beds. The locality is good but for

an estero which runs through the grounds. The average number of patients daily for the year 1901 was 172.6. From June 30, 1901, to April 15, 1902, 1,698 patients were treated. Of these, 772 were returned to duty, 25 died, 40 were discharged for disability, and 629 transferred to transports en route to the United States. The main specialty of this hospital is the reception for observation and disposition of cases which have been recommended for discharge on certificates of disability. These cases are held until the military history of each man is found to be complete and correct. In all cases, particularly those of a doubtful character, repeated examinations are made by the staff of the hospital acting as a board. A small proportion of these cases recover under treatment and are returned to duty. When the board is of the opinion that the disability may not prove to be permanent, transfer to the United States for treatment is recommended. When the disability is considered permanent, the case is transferred to the General Hospital, Presidio of San Francisco, Cal., for final disposition.

A camp for hospital corps casuals is connected with this hospital. The detachment is quartered in tents which are framed and floored.

#### THE NOZALEDA HOSPITAL, MANILA, P. I.

This hospital was established by Maj. R. W. Johnson, surgeon, U. S. Army, December 18, 1901, on the breaking up of the Santa Mesa Hospital. Surrounding it on all sides is the most beautiful garden in the city of Manila. The front rests on Nozaleda street for 420 feet and the rear on Louban street for 320 feet. The reservation is closed in by a high stone wall on three sides, the fourth side, the front, by an ornamental iron fence. The building is a two-story brick and stone structure, the first story taken up chiefly for administrative purposes, the second used as wards. The capacity is 125 beds; but in addition to this there is in one corner of the grounds an isolated camp of 20 beds in 6 hospital tents for patients suffering from tuberculosis of the lungs.

From the time of its installation to April 15, 1902, 444 patients were admitted, 325 suffering from various forms of venereal disease, 47 from consumption, and 72 from other causes.

#### THE CONVALESCENT HOSPITAL, CORREGIDOR ISLAND, PHILIPPINE ISLANDS.

Corregidor Island lies across the entrance of Manila Bay, 27 miles from the city of Manila. The island is 3 miles long and from one-fourth to three-fourths of a mile wide. The greater part of it rises abruptly from the water, reaching an extreme elevation of 550 feet above the sea. Several plateaus of different sizes are formed on the higher points of the island. The hospital is situated on the shore of a small bay, on the north side of the island. It consists of four wooden pavilions elevated about 3 feet from the ground and with corrugated iron roofing. Sliding windows encircle the buildings and permit the wards to be thrown open, giving the most complete ventilation. Covered porches, 5 feet wide, extend round the buildings.

The administration building is a structure of two stories, 50 feet square, the lower story used as offices, the upper as a dormitory for the detachment of the Hospital Corps.

The kitchen, with three army ranges, and dining room are large and commodious buildings. The latter, accommodating 250 men, is the largest and most suitable building of the kind to any hospital in or near Manila.

The last-mentioned buildings are built on the general plans of the pavilions. All of the buildings are painted white, inside and out, with green trimmings, and present a very neat appearance.

Storerooms, operating rooms, and dispensary are in two adobe buildings constructed by the Spaniards. They were rekalsomined last January, and answer in every respect the purpose for which they are used.

An ice and distilling plant is in operation, located in a building just outside the hospital grounds and formerly used as a school building. The plant is in excellent condition, having run throughout the year without a single day's stop and has greatly added to the comfort and health of the patients.

The natural drainage is perfect. Open drains run throughout the grounds, carrying the surface water to the bay. All excreta, garbage, and débris of every kind are collected daily and carried in open boats out to the sea about half a mile from the shore and dumped. This work is done by four natives hired by the quartermaster department and are under the immediate charge of an acting hospital steward. By this method the grounds are kept thoroughly policed and in good sanitary condition.

Water is supplied by piping from a dam built in a water course about three-quarters of a mile from the hospital. The dam leaks, and during the dry season the supply becomes low. This fact may in the future lead to a serious deficiency unless a larger dam is built. The erection of a proposed distilling plant would solve the problem to a great extent. During the rainy season the supply of water is abundant. Drinking water is distilled at the ice plant.

The food is very satisfactory, though recently the scarcity and high price of chickens and eggs has embarrassed the diet kitchen. Owing to the character of the hospital—a place for convalescents—practically all of the patients are on special diet. This is carefully watched, well prepared, and thoroughly enjoyed. The appetite of nearly all patients recovering from wasting disease is stimulated by the cool salt breezes, and in many cases voracious. The allowance of 40 cents is none too great; 50 cents a day could be easily used, with no wastage or extravagance.

As far as at present known, Corregidor Island is free from malaria, and such cases transferred here have done well. The water tanks, and all connections of water, however small, are covered with a layer of kerosene oil, and the few mosquitoes that would otherwise be present have disappeared. The sea air; delightfully cool breezes, almost constant; sea bathing, bright, cheerful wards, good food, and the faithful performance of their duty by the medical officers, Army Nurse Corps, and Hospital Corps, have restored to health many cases of debility, apparently chronic these good results being obtained, as a rule, rapidly, with little medical treatment.

REPORT  
OF  
THE PAYMASTER-GENERAL.

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WAR DEPARTMENT,  
PAYMASTER-GENERAL'S OFFICE,  
*Washington, September 18, 1902.*

SIR: I have the honor to submit the following report of this office for the fiscal year ended June 30, 1902:

On July 1, 1901, officers of the Pay Department were charged with public funds aggregating .....	\$7,740,087.92
During the fiscal year these officers received—	
From the United States Treasury .....	41,006,270.31
From soldiers' deposits .....	2,660,250.66
From army paymasters' collections .....	1,116,870.46
Total balances and receipts .....	52,523,479.35
Accounted for as follows:	
Expended on account of pay of the Army .....	39,452,537.46
Expended on account of pay of the Army, war with Spain (on Treasury certificates) .....	44,885.64
Expended on account of extra pay to Regular Army, war with Spain .....	25,645.28
Expended on account of extra pay to volunteers, war with Spain ...	78,335.30
Expended on account of mileage to officers .....	451,181.99
Expended on account of reimbursement to contract surgeons (on Treasury certificates) .....	10,905.91
Expended on account of pay of Military Academy .....	395,581.79
Expended on account of volunteers, Treasury certificates .....	297,555.00
Surplus funds deposited to credit of United States Treasurer .....	3,339,259.62
Army paymasters' collections deposited to credit of United States Treasurer .....	1,116,870.46
Balances charged officers June 30, 1902 .....	7,310,720.90
Total .....	52,523,479.35

A comparison of the expenditures for the fiscal year 1902 with those of the fiscal year 1901, shows a decrease of \$918,919. This amount is accounted for in part by the decrease in the pay of the Army, \$775,840.43; also the decrease in the claims arising from extra pay to Regular Army, war with Spain, and decrease in amount of volunteers, Treasury certificates.





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**REPORT OF THE PAYMASTER-GENERAL.**

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# REPORT

OF

## THE PAYMASTER-GENERAL.

WAR DEPARTMENT,  
PAYMASTER-GENERAL'S OFFICE,  
*Washington, September 18, 1902.*

SIR: I have the honor to submit the following report of this office for the fiscal year ended June 30, 1902:

On July 1, 1901, officers of the Pay Department were charged with public funds aggregating.....	\$7, 740, 087. 92
During the fiscal year these officers received—	
From the United States Treasury.....	41, 006, 270. 31
From soldiers' deposits.....	2, 660, 250. 66
From army paymasters' collections.....	1, 116, 870. 46
Total balances and receipts.....	52, 523, 479. 35
Accounted for as follows:	
Expended on account of pay of the Army.....	39, 452, 537. 46
Expended on account of pay of the Army, war with Spain (on Treasury certificates).....	44, 885. 64
Expended on account of extra pay to Regular Army, war with Spain.....	25, 645. 28
Expended on account of extra pay to volunteers, war with Spain...	78, 335. 30
Expended on account of mileage to officers.....	451, 181. 99
Expended on account of reimbursement to contract surgeons (on Treasury certificates).....	10, 905. 91
Expended on account of pay of Military Academy.....	395, 581. 79
Expended on account of volunteers, Treasury certificates.....	297, 555. 00
Surplus funds deposited to credit of United States Treasurer.....	3, 339, 259. 62
Army paymasters' collections deposited to credit of United States Treasurer.....	1, 116, 870. 46
Balances charged officers June 30, 1902.....	7, 310, 720. 90
Total.....	52, 523, 479. 35

A comparison of the expenditures for the fiscal year 1902 with those of the fiscal year 1901, shows a decrease of \$918,919. This amount is accounted for in part by the decrease in the pay of the Army, \$775,840.43; also the decrease in the claims arising from extra pay to Regular Army, war with Spain, and decrease in amount of volunteers, Treasury certificates.

Number and amounts of deposits received from and repaid to soldiers on discharge from July 1, 1872, to June 30, 1901.

Fiscal year ending June 30—	Deposits received.		Deposits repaid.		
	Number.	Amount.	Number.	Principai.	Interest.
1873.....		\$209,850.38			
1874.....		346,609.56			
1875.....		325,255.80			
1876.....		435,912.68			
1877.....	5,524	328,585.05	14,752	\$1,041,001.57	\$49,713.89
1878.....	5,524	346,243.94	3,182	145,667.91	8,420.24
1879.....	6,087	470,770.38	4,926	257,854.45	17,706.53
1880.....	8,635	477,174.44	8,084	392,568.93	30,680.97
1881.....	8,942	524,112.72	8,148	501,949.77	38,722.62
1882.....	6,890	448,561.83	7,570	428,482.44	31,658.73
1883.....	7,902	407,544.68	6,695	363,578.34	26,123.60
1884.....	7,114	389,267.55	8,184	404,291.57	31,124.93
1885.....	7,033	427,617.96	6,930	401,902.22	38,249.44
1886.....	7,261	469,031.55	7,835	490,506.79	46,583.23
1887.....	6,889	436,574.98	6,988	389,083.12	34,758.24
1888.....	7,409	386,944.10	6,346	323,952.97	29,327.01
1889.....	7,892	383,798.34	7,664	396,468.53	53,647.38
1890.....	7,634	395,128.82	7,206	411,039.74	41,596.60
1891.....	6,790	403,473.15	9,106	553,047.45	51,797.70
1892.....	5,570	334,464.70	8,019	410,873.15	38,894.26
1893.....	5,870	282,248.04	5,317	268,835.46	26,059.07
1894.....	5,914	361,830.76	5,786	290,088.08	27,014.32
1895.....	6,284	318,270.73	5,880	308,372.45	28,766.42
1896.....	8,778	420,338.87	6,486	359,200.43	38,614.66
1897.....	17,878	535,392.64	6,976	345,552.55	34,850.53
1898.....	21,856	613,513.51	17,377	561,518.64	45,815.61
1899.....	37,842	1,496,762.31	28,508	1,988,774.63	61,273.95
1900.....	91,461	3,215,544.66	27,571	1,028,146.34	43,234.89
1901.....	111,004	3,438,529.11	78,948	2,955,169.39	114,750.37
1902.....	80,833	2,660,250.66	104,109	3,002,424.24	147,441.81
Total.....		21,289,603.90		17,020,359.09	1,116,827.40
Estimated amount remaining to credit of depositors.....		4,269,244.81			

NOTE.—Repayment of deposits to soldiers from July 1, 1872, to June 30, 1896, were not recorded by fiscal years. The repayments of 1877 include all deposits repaid prior thereto.

The above table gives a complete history of soldiers' deposits since the passage of the act authorizing them, May 15, 1872. As will be seen by reference to the table, the number and amount of the deposits varied comparatively little from the beginning of the system until the fiscal year of 1897 and the breaking out of the Spanish war.

The deposits reported as repaid for the fiscal year 1901 was an estimated amount. The actual repayments are now reported in above table.

The amount of deposits reported as repaid for the present fiscal year is again estimated, due to the fact that the May and June accounts from the Philippine Islands have only recently reached this office, and are not yet examined and analyzed.

#### ENABLING ACT.

A bill "to authorize the settlement of accounts of officers of the Army" (S. 5437, Fifty-seventh Congress, first session), which was approved by the Secretary of War in his letter of May 7, 1902, to the chairman of the Committee on Military Affairs of the Senate, failed of passage in that House of Congress, not through any opposition to it in committee, as I am informed, but because of the greater urgency of other legislative matters.

Induced by the importance of this subject to disbursing officers of the Army, I earnestly hope that the necessity for this legislation may be presented again to Congress in the early days of its second session. The reasons for the passage of S. 5437 having accompanied the Secretary's letter of May 7 last, it is not deemed necessary to repeat them here.



*Mileage disbursements for the fiscal year ending June 30, 1902—Continued.*

	Certi- fied claims.	Janu- ary 1, 1899.	1899.	1900.	1901.	1902.
Battery competitions, provisions of G. O. 36, A. G. O., 1901.....						\$751. 15
Retiring boards and officers retired and ordered home.....					\$582. 30	4, 963. 24
Boards of examination to examine officers for promotion.....				\$119. 04	1, 076. 52	9, 125. 19
Boards of survey.....					1. 40	269. 73
Board on location of military sites, paragraph 26, S. O. 261, 1901.....						6, 387. 19
Boards on range finder.....						96. 36
Boards on uniform.....						1, 587. 80
Boards on officers' schools, G. O. 155, 1901.....						163. 92
Board on pneumatic gun.....						13. 79
Board on Gathmann gun.....						556. 26
Board on dynamite gun.....						14. 83
Board on examination of gunners.....						271. 08
Board on test of field artillery, S. O. 242, 1901.....					47. 25	437. 76
Board on organization and equipment of siege artillery.....						226. 66
Board on mortar tests.....						329. 78
Board on ammunition, artillery district of Pensacola.....						236. 36
Board on purchase of land at Fort Andrews.....						65. 30
Board on purchase of land at Fort Screven.....						2. 52
Board on military site at Des Moines, Iowa.....						11. 58
Board on military site at Fort Niagara.....						132. 86
Board on site for military prison.....						18. 04
Board on land at Fort Monroe.....						78. 96
Board on locating buildings at Fort Casey.....						52. 94
Board on fortification at Galveston Harbor.....						203. 78
Board on harbor defenses at Pearl Harbor, H. I.....						43. 14
Board on automobile carriage.....						364. 60
Board on brevet rank.....						304. 83
Board on revision of manual of guard duty.....						91. 42
Board on camp ground.....						74. 03
Board to investigate accident in firing salute at Fort Trumbell.....						74. 42
Board to investigate mining claim.....						268. 96
Board to appraise sloop Esperanza.....						87. 08
Witnessing payment of troops.....						7. 00
Witnessing hanging of Filipinos.....						11. 66
Business of Record and Pension Office.....						122. 50
Topographical work.....						28. 89
Consultation with department commander Army and Navy maneuvers.....					11. 58	208. 71
Memorial-day exercises.....						203. 98
Instruction artillery at Indian Head.....						76. 62
Mustering duty.....					3. 50	448. 00
War College.....						9. 38
Attending coronation King Edward VII.....						96. 32
Attending good-roads convention.....						268. 17
Attending Buffalo Exposition.....						121. 48
Marking Indian trail, Yellowstone Park.....						52. 92
Investigating loss of gold by abrasion in Porto Rico.....						141. 22
Investigating claims.....					2. 16	9. 52
Investigating Indian lease.....						16. 24
Special investigations.....						4. 48
Microscopical and bacteriological examination.....					4. 90	14. 84
Military information.....						22. 54
Customs business.....					13. 00	29. 00
Relief work in Porto Rico.....				10. 50		
Martinique expedition <sup>a</sup> .....						71. 76
Certified claims.....	\$36. 72					
Treasury certificates (duty not shown).....		\$23. 98	\$225. 12	596. 81	1, 550. 70	174. 82
Orders fail to state special duty enjoined.....				57. 75	827. 76	655. 41
<b>Total.....</b>	<b>36. 72</b>	<b>23. 98</b>	<b>225. 12</b>	<b>1, 282. 70</b>	<b>31, 016. 80</b>	<b>419, 105. 07</b>

<sup>a</sup> Refunded.

## PERSONNEL.

Since July 1, 1901, the following changes in the personnel of the Pay Corps have occurred:

Maj. Hugh R. Belknap, paymaster, died November 12, 1901. Capt. Beecher B. Ray, paymaster, was promoted to major and paymaster, November 12, 1901, vice Belknap, deceased.

Lieut. Col. Charles McClure, deputy paymaster-general, was retired from active service February 20, 1902, by operation of law. Maj. William H. Comegys, paymaster, was promoted to lieutenant-colonel and deputy paymaster-general February 20, 1902, vice McClure, retired. Capt. Herbert M. Lord, paymaster, was promoted to major and paymaster February 20, 1902, vice Comegys, promoted.

Maj. John P. Baker, paymaster, was retired from active service July 24, 1902, by operation of law. Capt. William B. Rochester, jr., paymaster, was promoted to major and paymaster July 24, 1902, vice Baker, retired.

The following captains of the line have been detailed as captains and paymasters under the act of February 2, 1901:

Capt. James McAndrew, United States infantry, July 6, 1901.

Capt. Guy Carleton, United States cavalry, October 15, 1901.

Capt. Charles E. Tayman, United States infantry, December 7, 1901, and detail revoked December 17, 1901.

Capt. Edmund Wittenmyer, United States infantry, December 17, 1901.

Capt. William F. Blauvelt, United States infantry, March 21, 1902.

Capt. Francis G. Irwin, United States cavalry, July 25, 1902.

Capt. Andre W. Brewster, United States infantry, was designated as acting paymaster United States Legation Guard, Peking, China, vice Maj. E. B. Robertson, ordered to join his regiment in the Philippine Islands.

## DISTRIBUTION OF OFFICERS AND GARRISONED POSTS.

On the 30th of June, 1901, there were 27 paymasters serving in the United States, 20 in the Philippine Islands, 3 in Cuba, 1 in Alaska, and 1 in Porto Rico; total disbursing officers, 52.

On the 30th of June, 1902, 32 were serving in the United States, paying a force increased by incoming troops from Cuba and the Philippine Islands; 16 in the Philippines, 3 en route to and from the Philippines, and 1 in Porto Rico.

The posts in the United States between January 1, 1901, and August 1, 1902, were increased from 118 to 142 and the number of arsenals decreased from 17 to 12. In the Philippine Islands between June 30, 1901, and February 2, 1902, the date of the latest returns received, the garrisons have been decreased from 490 to 320. Notwithstanding this decrease of 170 posts, it is found necessary to keep 16 paymasters in those islands to pay the still widely scattered garrisons, access to which is laborious and at times hazardous because of the bad condition of the roads, slow means of land transportation, and inadequate, tardy, irregular, and unsafe means of water transportation. Nevertheless, in this country and in the islands paymasters have acquitted themselves to the satisfaction of the Army.



## CLERICAL FORCE.

The clerical force of this office is most efficient. During the year, in accordance with the act of Congress dated April 28, the temporary force of clerks, consisting of 35, has been transferred to the classified service. This force, supplemented by those paymasters' clerks not on duty with paymasters, is barely sufficient to keep the work of the office up to date, although it is thought that in the course of a few months it may be reduced by dropping two or three from the bottom of the efficiency list. I have no recommendation regarding the clerical force, except to renew that in regard to the establishment of a system by which clerks who are disabled and who have served not less than thirty years may be placed on a civil pension list. A scheme has been suggested which, it would seem, might work well and not increase the expense of the Government. That is that all clerks should have deducted from their pay a certain amount each month, thus forming a fund, held in trust by the United States Treasury, from which such retired pay or pension could be paid. I see no trouble in adjusting such a scheme to a practical working basis if the principle be approved.

## TRANSFERS BY CABLE.

Between the 26th of September, 1899 (the date of the institution of the method for supplying in part from moneys circulating in the islands the currency needed for the cash payment of troops), and the 28th of August, 1902, \$12,490,818.04 in currency have been turned in to the chief paymaster at Manila by foreign banking institutions and others in the Philippines in exchange for New York checks, placed by this office, on cable notice, within twenty-four hours, to the credit of their agents in this country. This supply has of course modified the otherwise necessary withdrawals of a like amount of currency from use in the United States.

Since our occupation of the Philippine Islands, however, and to August 16, 1902, this department has sent out of the country to Manila by United States transports \$25,024,550 in currency for payment of the troops, in denominations from 1 cent to \$20; this in addition to the twelve million and odd dollars received and above mentioned. Of the amount transported, \$10,380,500 was in gold, \$13,220,000 in paper, and \$1,424,050 in subsidiary coin. Shipments of gold ceased October 1, 1901, and paper in lieu of gold will always be sent unless the Treasury should happen to be unprovided.

## DETAILS FROM THE LINE.

The present law detailing captains from the line for duty in the Pay Department works admirably. The only change that I would recommend in this connection would be that recommended by me in my annual report for 1901, that instead of the details being made from the captains of the line they be made from first lieutenants of the line, and the officers so detailed given the rank, pay, and allowances of captains, mounted, during their tour of service.

## EXPENDITURES ON ACCOUNT OF THE WAR WITH SPAIN.

The following letter and tabulated report of expenditures by this Department on account of the war with Spain may be of interest:

AUGUST 22, 1902.

Sir: In response to circular letter dated War Department, August 16, 1902, I have the honor to herewith submit a statement showing all expenditures from appropriations under control of the Pay Department, U. S. Army, "on account of the war with Spain from March 9, 1898, to the date of the inauguration of the Government of Cuba, May 20, 1902, exclusive of expenditures on account of military operations in the Philippine Islands and the regular expenditures covering the support and maintenance of the Army within the borders of the United States that would have been made, ordinarily, had there been no war with Spain.

The total approximate cost of the war with Spain on account of pay and extra pay to volunteers and regulars and mileage to officers, as shown by the said statement, is \$73,668,440.40.

Very respectfully,

A. E. BATES,  
Paymaster-General, U. S. Army.

The honorable the ACTING SECRETARY OF WAR.

*Statement of military expenditures by the Pay Department, U. S. Army, on account of war with Spain, from March 9, 1898, to May 20, 1902.*

## MILITARY ESTABLISHMENT.

[Pay, etc., of the Army and mileage to officers.]

Expenditures from March 9, 1898, to June 30, 1898.	\$6,563,732.36
Expenditures from July 1, 1898, to June 30, 1899.	68,560,859.99
Expenditures from July 1, 1899, to June 30, 1900.	36,552,812.29
Expenditures from July 1, 1900, to June 30, 1901.	39,838,227.13
Expenditures from July 1, 1901, to May 20, 1902.	35,918,043.37

Total	187,433,675.14
Less the total average cost of the Regular Army from March 9, 1898, to May 20, 1902, based upon expenditures for ten years prior to war with Spain.	56,883,605.23

Approximate pay and mileage \$130,550,069.91

## EMERGENCY FUND, WAR DEPARTMENT, ACT OF JANUARY 5, 1899.

["To disband the Cuban army."]

Expenditures from May 27, 1899, to June 30, 1899.	\$905,100.00
Expenditures from July 1, 1899, to June 30, 1900.	1,639,650.00

Approximate emergency fund \$2,544,750.00

## NATIONAL DEFENSE.

[Mileage to officers and pay of contract surgeons.]

Expenditures from March 9, 1898, to June 30, 1898.	\$41,965.58
Expenditures from July 1, 1898, to June 30, 1899.	174,087.02

Approximate national defense 216,052.60

## MISCELLANEOUS.

Extra pay to Volunteers, war with Spain.	\$3,562,980.00
Extra pay to Regular Army, war with Spain.	661,539.00
Pay, etc., of the Army, war with Spain.	59,311.00

Approximate miscellaneous 4,283,830.00

Grand total	137,594,702.51
Less the amount expended (pay and mileage) on account of military operations in Philippines, reported in S. Doc. 416.	63,926,262.11
Approximate cost of war with Spain.	73,668,440.40

## PAYMENTS IN THE PHILIPPINE ISLANDS.

As a matter of general interest and for further reference, I insert herein a copy of report made to the honorable the Secretary of War, April 25, 1902:

SIR: In response to section 3, Senate resolution of April 17, 1902, calling for "a statement of the amount of money expended, and the amount, as far as \* \* \* able to state the same, for which the Government of the United States is liable, remaining unpaid, for equipment, supplies, and military operations in the Philippine Islands each year from May 1, 1898, to the present time," I have the honor to report that the first detail of officers of the Pay Department left San Francisco, Cal., on June 27 and 29, 1898, respectively, for service in the Philippines, arriving at Manila on July 25 and 31. The first payments to the troops then on duty in those islands were made early in August, 1898, for the muster of June 30, and included pay from date of muster in to June 30. Since that date the troops there have been mustered and paid bimonthly.

The following summarized statement will show the total disbursements yearly from August 1, 1898, to include December 31, 1901 (the latest date covered by accounts received to the present time by officers of the Pay Department in the Philippines to troops there serving); also the total yearly disbursements for the same period at San Francisco, Cal., on account of pay, mileage, travel allowances, repayment of soldiers' deposits and interest thereon, clothing pay and extra pay due officers and men (regulars and volunteers) en route for duty in the Philippines or returning therefrom for muster out and discharge. The statement will also show the (estimated) total disbursements on account of Philippine service for the period from January 1 to April 30, 1902, and, as nearly as can be ascertained, the estimated amount that will remain due and unpaid on account of such service to include April 30, 1902:

*Summary of disbursements by Pay Department, United States Army, on account of Philippine service, from August 1, 1898, to include April 30, 1902.*

Disbursed by paymasters in Philippines, August 1, 1898, to June 30, 1899, inclusive.....	\$5, 854, 688. 67
Disbursed by paymasters at San Francisco, account Philippine service same period .....	1, 800, 836. 71
<b>Total disbursements for fiscal year ended June 30, 1899.....</b>	<b>\$7, 655, 524. 38</b>
Disbursed by paymasters in Philippines, July 1, 1899, to June 30, 1900, inclusive.....	14, 654, 429. 03
Disbursed by paymasters at San Francisco, account Philippine service same period .....	4, 057, 682. 58
<b>Total disbursements for fiscal year ended June 30, 1900.....</b>	<b>18, 712, 111. 61</b>
Disbursed by paymasters in Philippines, July 1, 1900, to June 30, 1901, inclusive (exclusive of \$542,792.03 paid to officers and men detached from the Philippines for service in China, September 2, 1900, to June 30, 1901) .....	\$18, 098, 400. 20
Disbursed by paymasters at San Francisco, account Philippine service same period .....	6, 223, 761. 47
<b>Total disbursements for fiscal year ended June 30, 1901.....</b>	<b>24, 322, 161. 67</b>
Disbursed by paymasters in Philippines, July 1, 1901, to December 31, 1901, inclusive (exclusive of \$28,900.31 paid to officers and men detached from the Philippines for service as legation guard at Pekin, China, same period).....	\$7, 245, 309. 57
Disbursed by paymasters at San Francisco, account Philippine service same period .....	2, 043, 188. 35
<b>Total disbursements from July 1 to December 31, 1901.....</b>	<b>9, 288, 497. 92</b>
Estimated disbursements by paymasters in Philippines, January 1, 1902, to April 30, 1902, inclusive.	\$4, 830, 206. 38
Estimated disbursements at San Francisco, account Philippine service same period .....	1, 362, 125. 57
<b>Total estimated disbursements, January 1 to April 30, 1902.....</b>	<b>6, 192, 331. 95</b>
<b>Aggregate disbursements August 1, 1898, to April 30, 1902.....</b>	<b>66, 170, 627. 53</b>

To this amount add, on account of pay, etc., due for two months on muster of April 30, 1902, in Philippines and remaining unpaid that date .....	\$2, 415, 103. 19	
And for pay, etc., for one month on account of Philippine service remaining unpaid at San Francisco on April 30, 1902.....	340, 531. 39	
		<u>\$2, 755, 634. 58</u>

Aggregate cost (actual and estimated) of military operations in the Philippines, account of pay, etc., of officers and men, from May 1, 1898, to include April 30, 1902.....	68, 926, 262. 11
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It is proper to add in this connection that the total amount received on account of soldiers' deposits from enlisted men serving in the Philippines from August 1, 1898, to include December 31, 1901, was \$6,908,176.

As a large proportion of said sum (probably \$5,000,000, interest included) has already been repaid to volunteers and regulars who served in the Philippines and have since been mustered out or discharged, or will be discharged, and repaid prior to April 30, 1902, it is suggested that the sum of, say, \$5,000,000 is properly deductible from the aggregate cost for Philippine service shown in the foregoing summary.

Very respectfully,

C. C. SNIFFEN,  
Acting Paymaster-General, U. S. Army.

Since the above report was made an official report of the receipts and disbursements in the Philippine Islands for the entire fiscal year 1902 has been received and is herewith appended.

*Statement of receipts and disbursements of Pay Department in the Division of the Philippines during the fiscal year 1902.*

Balance on hand July 1, 1901:		
With assistant treasurers, United States.....	\$1, 086, 123. 53	
Cash.....	2, 207, 129. 62	
		<u>\$3, 293, 253. 15</u>
Credits with assistant treasurers, United States .....		4, 580, 144. 99
Currency and silver received:		
From the United States.....	4, 300, 000. 00	
From Manila banks .....	5, 090, 000. 00	
From insular disbursing officers .....	307, 835. 34	
		<u>9, 697, 835. 34</u>
Soldiers' deposits received .....		1, 938, 241. 76
Paymasters' collections received.....		505, 284. 97
Total receipts .....		<u>20, 014, 760. 21</u>
Disbursements:		
Pay of the Army .....	14, 025, 668. 16	
Mileage.....	42, 571. 58	
		<u>14, 068, 239. 74</u>
Paymasters' collections deposited to credit Treasurer United States..		504, 913. 02
Surplus appropriations deposited to credit Treasurer United States..		993, 622. 49
Covered into Treasury (being balance with assistant treasurers in account with Maj. Hugh R. Belknap at his decease).....		59, 301. 68
Transferred to paymasters outside of division.....		16, 332. 01
Balance on hand June 30, 1902:		
With assistant treasurers .....	\$996, 868. 68	
In transit to assistant treasurers .....	41, 802. 22	
Cash .....	3, 333, 680. 37	
		<u>4, 372, 351. 27</u>
Total .....		<u>20, 014, 760. 21</u>

The records show that the paymasters have issued checks in exchange for currency to officers and enlisted men during the fiscal year as follows:

Assistant treasurer United States, New York .....	\$462, 600. 29
Assistant treasurer United States, San Francisco.....	561, 992. 11
Total .....	<u>1, 024, 592. 40</u>

CHAS. H. WHIPPLE,  
Lieutenant-Colonel and Deputy Paymaster-General,  
Chief Paymaster, Division of the Philippines.

It is with satisfaction that I am enabled to state that while the total disbursements on account of pay, etc., of the Army, from April 21, 1898, to June 30, 1902 (a period of four years two months and ten days), aggregates \$200,051,267, every cent has been satisfactorily accounted for and the Government has not lost one cent through defalcation, captures by the enemy, robbery, or any other cause; while the cost of disbursing this vast sum, including the salaries and mileage of paymasters and their clerks, has been but seven-tenths of 1 per cent of the amount disbursed.

When it is considered that very much of the service paid for has been remote from the United States, thereby increasing the cost of payment, it will be evident that had the troops been serving altogether in the United States, the cost of disbursement would in all probability have fallen to, or below, six-tenths of 1 per cent of the amount disbursed.

In this particular, contrasted with the civil war, when nearly a half million dollars was lost to the Government, the absence of any loss whatever during the period covering the Spanish-American war and the Philippine insurrection is a gratifying tribute to the official probity, responsibility, and accountability of the officers of the Pay Corps.

Attention is invited to the exhibits which are appended, showing in detail the accounts with the several appropriations, fifty-two paymasters having disbursed \$19,175,396.25 in the field, and \$21,581,232.12 in office payments, a total of \$40,756,628.37.

Very respectfully,

A. E. BATES,  
*Paymaster-General, U. S. Army.*

The SECRETARY OF WAR.

Statement showing the balance in the hands of each disbursing officer of the Pay Department, United States Army, on the 1st of July, 1901; the amount remitted to each from the United States Treasury, or turned over by other agents during the fiscal year ending June 30, 1902; the amounts accounted for by accounts and vouchers of expenditures, or by transfer or replacement in the Treasury, and the balance remaining in the hands of paymasters to be accounted for in the next fiscal year.

Rank and name.	Balance in hands of each paymaster on June 30, 1901.	Remitted from the Treasury in the year ending June 30, 1902.	Received from other paymasters.	Received from soldiers' deposits.	Received from paymaster's collections.	Total received and to be accounted for.	Surplus funds deposited in the Treasury.	Paymaster's collections deposited in the Treasury.	Expenditures.	Transferred to other paymasters.	Balance in hands of each paymaster on June 30, 1902.	Total accounted for.
<i>Colonels and assistant paymasters-general.</i>												
Coxe, F. M. ....	\$1,690,744.26	\$13,261,500.00	\$899,092.96	\$4,410.00	\$5,498.02	\$15,861,245.24	\$1,538,500.00	\$5,498.02	\$955,294.48	\$12,754,938.90	\$587,014.44	\$15,861,245.24
Towar, A. S. ....	1,516,200.17	390,000.00	4,996,570.89	11,732.76	3,889.86	6,817,343.67	863,165.96	3,889.86	408,446.62	5,480,682.48	111,208.79	6,817,343.67
Shiffin, C. C. ....												
<i>Lieutenant-colonels and deputy paymasters-general.</i>												
Baird, G. W. ....	948,100.75	18,488,957.81	501,894.01	14,053.98	34,396.00	19,976,202.05	30,742.61	34,396.00	3,529,650.26	15,454,076.28	927,327.95	19,976,202.05
Dodge, F. S. H. ....	128,947.14	4,820,013.00	1,243,213.54	21,899.04	4,783.65	6,717,404.37	91,223.36	4,783.65	1,715,650.39	3,754,190.72	149,610.08	6,717,404.37
Whipple, G. H. ....	109,634.90		7,922,020.23	5,465.95	4,531.91	8,398,659.99	66,348.40	4,531.91	322,032.37	6,081,746.34	2,861,996.07	8,398,659.99
Conneys, W. H. ....	328,992.04		1,497,483.49	47,141.30	20,648.11	1,892,264.94		20,648.11	1,399,055.63	472,561.20		1,892,264.94
<i>Majors and paymasters.</i>												
Tucker, W. F. ....	318,940.94	507,000.00	723,500.00	40,090.88	13,817.37	1,603,349.19	351,500.00	13,817.37	442,831.86	705,796.35	89,858.61	1,603,349.19
Mahlers, J. C. ....	91,479.20		1,250,894.84	56,254.00	39,142.27	1,437,769.81	50,462.45	39,142.27	636,267.01	711,908.08		1,437,769.81
Smith, G. P. ....	151,687.62		2,169,260.00	16,430.10	32,581.17	2,369,898.89	12,801.00	32,581.17	1,045,460.59	1,082,356.13	247,260.00	2,369,898.89
Baker, J. P. ....	59,978.75	520,000.00	298,969.69	31,295.11	23,019.84	930,263.39	23,858.63	23,019.84	701,500.89	181,884.08		930,263.39
Hallford, E. W. ....	187,222.55		1,541,037.30	58,915.00	17,973.89	1,800,148.74		17,973.89	1,108,081.84	583,381.62	122,841.27	1,800,148.74
Kilbourne, C. E. ....	46,041.06	363,000.00	492,086.44	17,629.47	10,850.29	748,238.22	1,188.30	10,850.29	440,868.72	263,381.62	41,971.29	748,238.22
Bullis, J. L. ....	12,513.23		318,707.40	33,889.73	19,186.21	547,575.61	25	19,186.21	376,109.78	152,329.87		547,575.61
Rogers, H. L. ....	32,036.17		492,639.16	18,622.40	7,083.82	563,381.73	398.78	7,083.82	261,745.76	62,344.71	33,808.71	563,381.73
Watrous, J. A. ....	261,686.86		812,921.26	106,863.81	30,662.86	1,200,634.86	63,425.62	30,662.86	827,626.86	237,520.43	41,099.09	1,200,634.86
Gilbert, W. W. ....			619,837.89	16,213.30	6,986.19	641,967.37		6,986.19	373,096.32	233,696.73	29,264.63	641,967.37
Rees, H. L. ....	213,621.19		1,050,946.90	122,191.58	36,337.15	1,423,967.82		36,337.15	859,139.59	476,983.49	51,626.38	1,423,967.82
Vinson, W. ....	56,877.41		2,076,614.37	60,619.25	26,393.28	2,720,404.26		26,393.28	717,906.49	1,896,806.49	89,296.00	2,720,404.26
Newbold, H. ....	84,416.28	77,000.00	691,492.91	24,158.66	28,192.64	905,204.39	11,274.82	28,192.64	700,914.97	150,954.85	13,923.11	905,204.39
Wallace, Chas. ....	87,968.36		599,031.69	68,464.06	19,580.33	774,894.43		19,580.33	478,631.97	187,631.96	89,100.17	774,894.43
Payson, F. L. ....	76,414.08		561,630.90	78,870.09	21,455.64	918,370.66		21,455.64	468,908.19	279,247.54	22,153.28	918,370.66
Belknap, H. R. ....	37,192.66		872,590.00	1,826.94	1,173.80	72,723.41	58,929.73	1,173.80	73,372.94	719,247.54		72,723.41
Downey, G. F. ....		265,000.00	495,000.00	29,479.84	13,616.25	743,996.09		13,616.25	478,696.68	186,900.78	94,588.38	743,996.09

<sup>c</sup> Died November 12, 1901.

<sup>b</sup> Retired July 24, 1902.

<sup>a</sup> On duty as assistant to Paymaster-General.

REPORT OF THE PAYMASTER-GENERAL.

Statement showing the balance in the hands of each disbursing officer of the Pay Department, United States Army, on the 1st of July, 1901; the amount remitted to each from the United States Treasury, or turned over by other agents during the fiscal year ending June 30, 1902; the amounts accounted for by accounts and vouchers of expenditures, or by transfer or replacement in the Treasury, and the balance remaining in the hands of paymasters to be accounted for in the next fiscal year—Continued.

Rank and name.	Balance in hands of each paymaster on June 30, 1901.	Remitted from the Treasury in the year ending June 30, 1902.	Received from paymasters.	Received from soldiers' deposits.	Received from paymaster's collections.	Total received and to be accounted for.	Surplus funds deposited in the Treasury.	Paymaster's collections deposited in the Treasury.	Expenditures.	Transferred to other paymasters.	Balance in hands of each paymaster on June 30, 1902.	Total accounted for.
<i>Majors and paymasters—Continued.</i>												
Goodman, T. C.	\$98,072.41		\$811,271.10	\$122,801.86	\$32,607.41	\$1,064,752.78		\$82,607.41	\$842,117.68	\$54,588.01	\$185,444.68	\$1,064,752.78
Houston, J. B.	59,370.02		999,440.48	113,841.06	31,118.10	1,208,769.65		31,118.10	196,870.12	196,870.12	121,614.82	1,208,769.65
Ray, B. R.	47,472.91		1,317,049.89	97,633.60	25,557.86	1,487,713.76		25,557.86	645,952.81	645,952.81	1,487,713.76	1,487,713.76
Lord, H. M.	28,822.78	\$275,000.00	155,000.00	18,779.81	13,925.95	491,028.54		13,925.95	402,876.89	74,226.20		491,028.54
<i>Captains and paymasters.</i>												
Rochester, W. B., Jr.	52,683.08		1,176,034.54	23,075.50	14,643.68	1,266,816.80		14,643.68	902,915.88	322,797.18	25,960.06	1,266,816.80
Smith, R. S.	131,480.00		799,060.00	170,439.88	38,896.08	1,099,865.96	\$981.49	38,896.08	922,777.24	20,000.00	117,511.15	1,099,865.96
Howell, S.		544,000.00	445,201.89	24,112.54	18,676.21	1,031,990.44	22,528.10	18,676.21	752,041.84	131,139.08	77,606.24	1,031,990.44
Routlow, G. T.	25,186.57	141,500.00	550,968.01	104,811.40	33,505.46	990,494.87		33,505.46	774,823.86	129,869.27	52,186.25	990,494.87
Wambull, W. G.	57,418.17		2,717,104.27	21,549.02	24,765.45	2,923,089.01	5,106.72	24,765.45	1,653,316.08	1,186,638.25	58,463.18	2,923,089.01
Seibener, W. B.	57,494.16	275,000.00	1,419,572.98	24,531.69	23,867.29	1,497,589.12		24,531.69	1,291,574.00	153,778.37	58,086.40	1,497,589.12
Pickett, G. E.			1,080,877.98	24,531.69	23,867.29	1,130,877.96	11,280.75	24,531.69	1,076,630.99	120,776.94	50,071.03	1,130,877.96
Becker, C. O.	43,029.46	15,000.00	1,029,484.79	24,401.11	23,401.11	1,108,317.15	11,000.00	24,401.11	1,019,928.15	129,776.94	17,108,287.15	1,108,317.15
Carry, M. B.	82,917.46		587,472.82	49,887.69	17,242.70	738,470.32	14.00	17,242.70	471,438.58	155,247.69	24,802.20	738,470.32
Darr, J. W.	82,542.47		857,439.83	28,285.82	23,271.61	988,949.18	8,546.23	23,271.61	870,450.88	42,653.87	588,949.18	988,949.18
Wills, J. S.	78,164.59		734,740.00	82,268.52	28,311.53	893,484.11		28,311.53	656,729.86	288,443.74	82,542.47	893,484.11
Conby, Jas.	91,804.74	160,000.00	653,507.21	111,714.73	39,868.76	1,051,896.44		39,868.76	782,047.83	120,641.71	119,487.64	1,051,896.44
Conby, Eugene	66,804.45	280,000.00	731,398.54	68,115.08	30,715.08	1,186,824.68		30,715.08	909,524.25	137,016.37	29,867.84	1,186,824.68
Varnay, T. P.	46,200.51		411,693.78	76,726.83	27,591.58	575,908.12		27,591.58	457,441.75	88,735.45	6,423.96	575,908.12
Lynch, J. R.	48,021.88		508,387.52	38,260.80	17,051.50	604,389.11	8,000.00	17,051.50	448,386.51	108,875.09	121,868.48	604,389.11
Graham, W. R.		320,000.00	309,474.46	33,130.36	21,631.86	684,236.18		21,631.86	539,141.36	120,493.46	11,605.41	684,236.18
Stanton, C. E.	70,000.00	40,000.00	1,984,860.39	83,474.92	29,684.68	2,128,521.99		29,684.68	1,997,086.46	397,086.46	2,128,521.99	2,128,521.99
Stevens, P. C.	58,028.86		669,681.50	39,069.64	23,910.65	765,690.68	14,000.25	23,910.65	687,072.64	15,313.15	45,303.99	765,690.68
Slaughter, B. D.	55,262.21	162,000.00	624,214.81	91,211.83	32,148.70	894,886.55	15,000.00	32,148.70	744,156.29	158,980.77	11,597.85	894,886.55
<i>Captains and paymasters detailed from the line.</i>												
Blunvelt, W. F.			275,000.00	2,280.52	4,779.65	282,060.17		4,779.65	196,970.15	20,000.00	60,310.34	282,060.17
Carlson, Guy			474,262.88	62,541.96	15,656.28	552,316.56		15,656.28	462,846.81		74,484.46	552,316.56

REPORT OF THE PAYMASTER-GENERAL.

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Wittmeyer, E.....	635,412.79	500,188.52	114,540.85	635,412.79							
McAulreay, J. W.....	878,907.84	771,657.15	88,282.26	878,907.84							
Whipple, H. S.....	991,289.01	887,801.96	100,000.00	991,289.01							
<i>Acting paymasters.</i>											
Robertson, E. B. a.....	114,002.41	33,699.69	38,290.68	114,002.41							
Brewster, A. W.....	45,397.72	20,988.97	23,257.71	45,397.72							
<i>Major and additional paymaster, volunteers.</i>											
Monaghan, Wm. b.....	24,138.92			24,138.92							
Total.....	7,740,087.92	41,006,270.31	56,495,368.57	2,660,250.66	1,116,870.46	109,018,847.92	3,389,259.62	1,116,870.46	40,756,628.57	56,495,368.57	7,310,730.90

a Relieved January 31, 1902.

b Died April 13, 1901.



## REPORT OF THE PAYMASTER-GENERAL.

Statement of the account of the Pay Department, United States Army, with the

Appropriations.	In account with the Treasury.					Total.
	Balance in the Treasury, July 1, 1901.	Amount of appropriations and transfer warrants.	Unexpended balances deposited.	Paymasters' collections deposited.	Repayments in settlement of accounts.	
Pay, etc., of the Army, 1902.....	\$38,950,624.94		\$208,973.73	\$412,047.11	\$184.46	\$39,571,830.24
Pay of Military Academy, 1902.....	400,817.13		70.00			400,887.13
Mileage to officers traveling without troops, 1902.....		500,000.00		1,223.02		501,223.02
Pay, etc., of the Army, 1901.....	\$7,041,920.84	35,634.56	2,970,295.68	284,472.52	2,772.83	10,335,096.43
Pay of Military Academy, 1901.....	18,445.04	13.00	6,532.60		319.60	25,310.24
Mileage to officers traveling without troops, 1901.....	264,378.28		31,055.51	1,592.88		297,026.67
Pay, etc., of the Army, 1900.....	5,414,094.37	248.05	98,846.52	7,048.83	447.00	5,520,684.77
Pay of Military Academy, 1900.....	24,040.02	13.00				24,053.02
Mileage to officers traveling without troops, 1900.....	150,073.20		3,815.68	1,390.76		155,279.64
Pay, etc., of the Army, 1899 and prior years.....			19,288.76	3,127.85	268.18	22,684.79
Mileage to officers traveling without troops, 1899 and prior years.....			1,261.06	535.76	24.96	1,821.78
Reimbursement to contract surgeons.....	430.00	10,000.00	1,500.00			11,930.00
Pay of two and three year volunteers, 1871 and prior years.....					685.17	685.17
Extra pay to volunteers, war with Spain.....		65,560.59			51.24	65,611.83
Extra pay to Regular Army, war with Spain.....		17,254.26	500.00	15.60	151.04	17,920.90
Bounty under act of July 28, 1866, indefinite.....					100.00	100.00
Extra pay to officers and men who served in Mexican war.....		21.00				21.00
Three months pay proper.....						
Bounty to Fifteenth and Sixteenth Missouri Cavalry Volunteers.....						
CERTIFIED CLAIMS.						
Pay, etc., of the Army.....	1,536.91	3,270.29				4,807.20
Mileage to officers traveling without troops.....		145.44				145.44
Pay, etc., of the Army, war with Spain, 1902.....		200,000.00			47.54	200,047.54
Arrears of pay, bounty, etc., 1902.....		325,000.00				325,000.00
Arrears of pay, bounty, etc., 1901.....	106.48		9,286.40	10.00	17.72	9,420.60
Arrears of pay, bounty, etc., 1900.....	50.62		285.44	9.20	10.00	355.26
Pay of two and three year volunteers.....	7,531.90	1.30		1.78		7,534.98
Pay of two and three year volunteers, 1899 and prior years.....					316.37	316.37
Bounty to volunteers, their widows, and legal heirs.....	19,721.71			1.72		19,723.43
Bounty under act of July 11, 1862.....		75.00				75.00
Bounty under act of July 28, 1866.....	2,735.35					2,735.35
Traveling expenses of California and Nevada volunteers.....	309.77	149.71				459.48
Pay of volunteers.....		39.43				39.43
Pay, transportation, services, and supplies of Oregon and Washington volunteers in 1855 and 1856.....		118.21				118.21
SPECIAL ACCOUNT.						
National Defense (war).....				473.01		473.01
Total.....	12,945,374.49	40,508,985.91	3,351,691.38	711,949.99	5,396.11	57,522,397.89

REPORT OF THE PAYMASTER-GENERAL.

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appropriations subject to its control during the fiscal year ending June 30, 1902.

In account with the Treasury.						
Amount drawn by requisition.		Amount covered into surplus fund.	Total.	Balance in the Treasury, June 30, 1902.	Balance in the hands of paymasters, June 30, 1902.	Total balances, June 30, 1902.
On Pay Department request.	On Treasury settlements.					
\$39,139,000.00	\$38,526.57		\$39,177,526.57	\$394,303.67	\$6,967,797.12	\$7,382,100.79
400,000.00			400,000.00	887.13	32,569.99	38,447.12
495,000.00	98.12		495,098.12	6,129.90	76,029.86	82,159.76
479,000.00	18,499.80		497,499.80	9,837,596.63	56,648.42	9,894,245.05
	465.37		465.37	24,844.87		24,844.87
	752.10		752.10	296,274.57	44,088.27	340,312.84
35,000.00	16,167.23	\$3,969,517.54	4,020,684.77	1,500,000.00	15,460.95	1,515,460.95
13.00		24,040.02	24,053.02			
	865.13	54,414.51	55,279.64	100,000.00	3,585.19	108,535.19
		22,664.79	22,664.79			
		1,821.78	1,821.78			
5,314.18	3,460.53		8,774.71	3,155.29	938.27	4,098.56
		685.17	685.17			
60,000.00	5,611.83		65,611.83		16,309.27	16,309.27
15,000.00	2,920.90		17,920.90		12,620.74	12,620.74
		100.00	100.00			
	21.00		21.00		986.00	986.00
					328.78	328.78
					391.66	391.66
2,653.44	482.91		3,136.35	1,670.85	1,707.92	3,378.77
36.72	108.72		145.44			
60,000.00	6,772.63		66,772.63	133,274.91	15,102.86	148,377.77
315,000.00	9,599.10		324,599.10	400.90	37,719.24	38,120.14
				9,420.60	2,126.48	11,547.08
	10.00	345.26	355.26		82.10	82.10
	1.30		1.30	7,583.68	2,496.01	10,029.64
		316.37	316.37			
				19,723.48	3,683.60	23,407.08
50.00			50.00	25.00		25.00
				2,735.35	200.00	2,935.35
202.97			202.97	256.51		256.51
				39.48	8.17	47.60
	118.21		118.21			
	a 473.01		473.01			
41,006,270.31	104,949.46	4,073,906.44	45,185,125.21	12,838,272.67	7,310,720.90	19,648,993.57

a This amount, collected during the fiscal year on account of mileage overpaid officers, and being no longer subject to control of the Pay Department, was carried, on June 30, 1902, to credit of the general account with "National Defense (War)," and dropped from the Pay Department appropriation ledger.



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**REPORT OF THE CHIEF SIGNAL OFFICER.**

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R E P O R T  
OF  
THE CHIEF SIGNAL OFFICER.

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WAR DEPARTMENT, SIGNAL OFFICE,  
*Washington, October 1, 1902.*

SIR: I have the honor to submit herewith my annual report covering operations of the Signal Corps of the Army for the fiscal year ending June 30, 1902.

For convenience of reference field operations of the Signal Corps are treated in this report geographically under the various headings of Alaska, Cuba, the Philippines, and the United States.

OPERATIONS IN ALASKA.

The act of Congress approved May 26, 1900, provided for an extensive system of military telegraph lines and cables in Alaska, to be constructed and operated by the Signal Corps of the Army.

The remoteness of the region, the shortness of the summers, and the extreme physical difficulties of transportation and line construction naturally rendered the completion of these lines impracticable in the fiscal year ending June 30, 1901. In consequence, the appropriations have been continued in force by Congress including the fiscal year ending June 30, 1903.

Capt. Frank Greene, Signal Corps, in charge of construction work, has been transferred from Alaska to the Philippines, being relieved by Maj. Joseph E. Maxfield as signal officer, Department of the Columbia, under War Department orders, dated February 11, 1902. The very serious illness of Major Maxfield, culminating during an inspection trip in Alaska, rendered it impossible for that officer to make an annual report. Moreover, as Captain Greene and First Lieut. O. B. Grimm, the only officers of the Signal Corps familiar with the work in the lower Yukon, are both serving in the Philippines, the general supervision of the Alaskan work, as well as the detailed preparation of the report thereon, has during the past months fallen on the Chief Signal Officer of the Army, the only one having familiarity with the conditions.

As originally planned, the Alaskan telegraph system simply brought the territorial military posts in communication with each other and with the commanding general of the department, then stationed at St. Michael, but did not afford means of telegraphic communication outside of the Territory of Alaska.

Through conference between the Canadian government at Toronto and the Chief Signal Officer of the Army cooperation in telegraphic work between the Alaskan and Canadian systems was established. The distinguished premier of Canada, Sir Wilfrid Laurier, in consenting to recommend favorable action on this cooperation to the Canadian parliament, expressed personally to the Chief Signal Officer of the Army his desire to further any plan which would bring the United States and Canada into closer and more cordial relations, especially in Northwest America. The Canadian parliament having made an appropriation therefor, its own system was extended from Ashcroft, on the Canadian Pacific Railway, to the international boundary line between Dawson and Fort Egbert.

As a result of this cooperative work the telegraph line between Dawson and Fort Egbert was completed on May 5, 1901, placing the American territory on the Upper Yukon in direct telegraphic communication with Skagway, whence by steamer telegrams could reach Washington under ordinary conditions in four days. On September 4, 1901, the Canadian line between Dawson and Ashcroft was completed, thus bringing the Upper Yukon region of the United States in direct telegraphic communication with Washington and the rest of the commercial world.

In the Department of Alaska Brig. Gen. George M. Randall, the commanding general, has shown not only an unusual official activity in the construction of lines during the period of his service at St. Michael, but his personal advice and interest, invaluable to the Signal Corps of the Army, have been maintained since the transfer of headquarters to the Department of the Columbia, Vancouver Barracks, Wash. The same spirit of helpfulness and assistance has been experienced at the hands of the officers of his staff and, with very rare exceptions, from the commanding officers of posts.

A preliminary reconnaissance of the route made by the Chief Signal Officer in person in 1900 was absolutely necessary, in view of the extremely conflicting opinions as to the possibility of constructing such a line, and as to the routes which must be followed to economically carry out the work. While such reconnaissance afforded invaluable knowledge to the Chief Signal Officer of the Army as to topographical features of line construction, it also confirmed his belief that such a line could be built and operated, despite the predictions of many persons of Alaskan experience that such work was impossible of execution.

It seemed to the Chief Signal Officer of the Army to be of primary importance that as many posts as possible should be speedily brought into intercommunication with each other and with adjoining telegraph stations. Thus practical results might be most speedily obtained, leaving the graver and more difficult parts of the problem for later solution.

Efforts were therefore directed, first, to connecting Fort Egbert (Eagle City) with Dawson; second, to connecting Fort Davis, near Nome City, Alaska, with Fort St. Michael and the headquarters of the commanding general of the department; third, to connect Fort Liscum (Valdes), Prince William Sound, with Fort Egbert (Eagle City), over what is popularly known as the all-American route to the Klondike; fourth, to connecting department headquarters at Fort St. Michael with Fort Gibbon at the mouth of the Tanana River; fifth,

to connecting the military post at Skagway with Juneau, the capital of Alaska; sixth, to connecting Fort Gibbon with Fort Egbert (Eagle City) either via Rampart, or, seventh, along the Tanana River by such route as developments might make advisable.

By the extraordinary energy and activity of officers and men of the Signal Corps, heartily seconded by the officers and men of the line in Alaska, the first six lines have been completed, leaving only the seventh for the coming fiscal year, as shown by the inclosed text map.

#### EGBERT SECTION.

There being available only a few skilled men of the Signal Corps, Capt. Charles S. Farnsworth, Seventh Infantry, pushed to a speedy and successful completion, by a detail from his command, the construction of the line from Fort Egbert (Eagle City) to the international boundary, where, on May 5, 1901, it was connected with the Canadian telegraph line to Dawson, as mentioned in the last annual report.

#### NOME SECTION.

The connection of Fort Davis, at Nome, with Fort St. Michael was originally contemplated to be by a direct cable, but consideration of the usual ice condition of Norton Sound, and in deference to the general consensus of opinion confirmed by a personal inspection of the *terrain* near Nome City, caused the Chief Signal Officer to believe that a cable thus laid could not survive the action of the polar pack along the coast of the open roadstead of Nome. In consequence it was decided to lay a cable between St. Michael and Safety Harbor, where the cable, laid in the middle of the channel, would be at least partly protected from the polar pack, and thence reach Fort Davis and Nome by a land line.

A first-class telegraph line, on iron poles, was constructed under the supervision of Maj. John T. Van Orsdale, Seventh Infantry, from Nome City, through Fort Davis, to Safety Harbor.

In laying the cable between St. Michael and Safety Harbor the Chief Signal Officer of the Army decided to follow the same lines of operation as is pursued by commercial cable companies, and consequently invited proposals looking to the laying of the cable under the usual conditions, whereby payment is only made after it shall have been in successful operation for thirty days.

The award was made to Mr. W. R. Brixey, but unfortunately the steamer *Orizaba*, engaged in laying the cable, was wrecked near St. Michael, Alaska, on September 17, 1900. The lateness of the season made it impossible to obtain outside help. Eventually the cable was salvaged and laid by the Alaska Commercial Company, and communication opened between Nome and St. Michael on October 17, 1900.

Captain Greene, the signal officer of the department at St. Michael, owing to various complications as to the condition and title of the cable thus laid, declined to receive it, and referred the matter to the Chief Signal Officer of the Army. Alaskan navigation being closed, many months' delay resulted, and in the meantime the cable was broken by the polar pack. The legality of title to the cable being established, the Chief Signal Officer directed the signal officer of the department to receive the cable, which had meanwhile been again restored by the contractor to working condition.



The cable was then formally received by the Government and was operated during the summer and autumn; it was again interrupted by the polar pack on November 24, 1901. It therefore seemed advisable to try other methods of communication.

The achievements of wireless telegraphy having been strongly advanced, recourse was had thereto in the hopes that one of the commercial systems might prove satisfactory. Proposals were invited, and on the recommendation of a board of signal officers the award was made to the lowest bidder, Queen & Co., who guaranteed to establish, in working order, between Nome and St. Michael, the Fessenden system by October 1, 1902. It became evident some weeks since that this contract could not be completed without extension of time, which the company has lately urged on the Signal Office.

As soon as delay in the wireless system became evident Gen. George M. Randall, commanding the Department of the Columbia, urgently requested that an attempt should be made to repair the Nome-St. Michael cable this autumn. The Chief Signal Officer of the Army found that the only possible chance of repairs in compliance with General Randall's request lay in sending Signal Corps experts by steamer leaving San Francisco September 10, 1902. First Lieut. Walter L. Clarke, with two skilled Signal Corps men relieved from duty with the maneuvers, left for Alaska on three hours' notice. However, it seems more than probable that the cable will not live in Norton Sound unless it is taken up and transferred considerably to the eastward, so as to run into Golovin Sound, which would require the extension of the land line some miles to the eastward. This may possibly be done in the summer of 1903, unless meanwhile a system of wireless telegraphy can be installed satisfactorily. While there is an uncertain outcome, yet this action is in keeping with the policy of meeting the demands of the line of the Army in grave emergencies.

#### YUKON SECTION.

This section of line extends from department headquarters, at Fort St. Michael, to Fort Gibbon, in the Yukon Valley. Crossing the St. Michael canal to the mainland, it was built via Golsovia and Unalaklik along the coast, thence across the Kaltag portage to Nulato, whence it follows the north bank of the Yukon River to the northeast to Fort Gibbon, at the mouth of the Tanana. At the end of the summer of 1901 222 miles of this line had been built, of which 138 miles were constructed under the officers and noncommissioned officers of the Signal Corps and 84 miles under the supervision of five officers of the line of the Army.

Notwithstanding the urgent orders of General Randall, the work done under the officers of the line progressed very slowly. These officers, however, labored under many disadvantages, not being technically trained in construction work, and being in addition loaded down with multifarious duties.

While the original estimates and plans looked to the construction of the line by working details from the line of the Army, supervised by expert linemen and electricians of the Signal Corps, yet modifications were plainly necessary or the whole project would fail. Signal Corps detachments were diverted from the Philippines as working parties, and the original assignment of two officers was increased to four, it

being necessary to send into an Alaskan winter officers just returned from prolonged service in the Tropics. These officers were Capt. Frank Greene, signal officer of the department, in charge, with station at Fort St. Michael; Capt. George C. Burnell, stationed at Valdes; First Lieut. O. B. Grimm, later relieved by First Lieut. George S. Gibbs, with station at Fort Gibbon, and First Lieut. William Mitchell, stationed at Fort Egbert. This action was most timely, as the change of garrisons consumed practically the summer of 1902.

Lieutenant Gibbs applied himself to the work of construction in the Lower Yukon with great energy, and his efforts were so well directed that the line was opened to Fort Gibbon on November 18, 1901. This placed in direct communication with each other Nome, St. Michael, and Fort Gibbon by combined land line and cable system of 408 miles in length. The importance and value of this connection may be estimated by the fact that the ordinary mail time between these two points is twenty-nine days.

#### VALDES SECTION.

The construction of a line between Fort Liscum, near Valdes, and Fort Egbert (Eagle City) was deemed most important, as it would bring Fort Liscum, the Prince William Sound region, and the rich Copper River Valley in communication with the outer world. Moreover, it followed the all-American route to the Klondike region, then being much exploited. The line, however, ran through a country of rapid rivers and tundra morasses without roads. While it has been made passable for pack trains by the well-directed energies of Maj. W. R. Abercrombie, acting engineer officer, Department of Columbia, who had opened up the trail to Chestochina, about 170 miles inland from Prince William Sound, the remainder of the distance from Chestochina to Fort Egbert, about 270 miles, was country where no improvement of the rarely traveled trail had been made, thus making transportation of material and supplies a work of almost inconceivable difficulty.

Captain Burnell set to work with a determination to surmount the almost insuperable obstacles which confronted him, and at the end of the last fiscal year 37 miles of line had been built. Taking advantage of the heavy winter snowfall, Captain Burnell put his party in the field in midwinter, on January 1, and sledged a large quantity of forage, subsistence stores, and line material over the frozen rivers and swamps, impassable in summer, breaking the trail into the interior through deep snow under very trying conditions. Drifting snow, low temperatures, and many open-water spaces in the rapids of Keystone Pass made the work most dangerous and delayed progress.

Meanwhile the autumn advanced with no signs of equally extended work in the Upper Yukon, whence the garrison at Fort Egbert (Eagle City) was expected to work southward toward Fort Liscum (Valdes). It was therefore deemed necessary to send First Lieut. William Mitchell, Signal Corps, into Alaska in midwinter, he crossing over the White Pass route by sledge to Dawson and thence to Fort Egbert, which place he reached on January 4, 1902.

The commanding officer at Fort Egbert had not deemed it advisable to commence transportation of the varied line material, subsistence, and quartermasters stores, so that Lieutenant Mitchell found himself handicapped by unexpectedly adverse conditions. General Randall,

however, placed under him by telegraphic order all available transportation and from the garrison as large a detail as was possible to assist him in his work, but shortly after most of the men of the line were necessarily relieved, owing to the change of stations then going on in Alaska.

With Captain Burnell working from the south and Lieutenant Mitchell from the north, they finally met near the Tanana Junction on August 24, 1902, when the connection was made and the line opened, thus bringing Valdes and the Prince William Sound country in telegraphic communication with the rest of the world. The line—about 420 miles in length—runs from Fort Liscum through Keystone Canyon to Copper River Valley, with stations at Copper Center and Chistochina, through Mantasta Pass, across the Tanana Valley to Kechumstock, near head waters of Forty-mile Creek; thence into Eagle City and Fort Egbert.

Of this line, about 260 miles were built by Captain Burnell, about 125 miles by First Lieut. William Mitchell, Signal Corps, and the balance of 35 miles by an officer from Fort Egbert. Judging from some 30 miles of Burnell's work, inspected by the Chief Signal Officer, the line is of remarkable solidity.

The toil and hardships experienced by these and all other working parties—enlisted men of the line, the Signal Corps and civilian employees—can not be fairly appreciated by anyone unfamiliar with Alaskan trails. Suffice it to say that every pound of food, forage, tentage, etc., wire, insulators, or line material has to be moved by pack animals over a trail so rough that an animal can hardly travel 15 miles a day. Cold and rapid glacial streams, swampy morasses, tangled underbrush, steep declivities, narrow canyons, thick timber, and sharp ridges alternate to tax the strength of man and animal to the utmost. The monotony of the life is exceedingly trying after the novelty of scenery disappears. Rarely is any large game or even bird life seen, and humanity, whether in the shape of prospector or Indian, appears infrequently and morosely. When to these conditions are added the physical discomforts attendant on frequent falls of rain in summer and of snow in winter, with high, cutting winds, it requires firmness of purpose to persevere to the end. Certain it is that no body of men in Alaska render more faithful and valuable service to the country than do the enlisted men of the Army, especially on the telegraph trails.

#### RAMPART SECTION.

This line, built along the Yukon from Fort Gibbon to Rampart City, was constructed with a view of reaching Fort Egbert by a direct route across country to Circle City, and thence follow the river. Captain Greene was unremitting in his efforts to find a practicable route, adhering to the opinion that it was the most direct, and, indeed, the only practicable way. The outcome was so unsatisfactory that the Chief Signal Officer stopped the line at Rampart City, and adopted the Tanana route.

It required no less than four exploring expeditions, covering a period of nearly two years, to find a route between Rampart City and Circle City which could even be traveled by an exploring party, let alone building a telegraph line.

The line from Fort Gibbon to Rampart City was completed in January, 1902, by Lieut. George S. Gibbs. The adverse conditions of cli-



The officers who have served with the corps during the fiscal year are: Capt. G. W. S. Stevens, Artillery Corps (now relieved); First Lieut. Evan H. Humphrey, Seventh Cavalry; First Lieut. Frederick M. Jones, Ninth Cavalry; and Second Lieut. James A. Higgins, Thirtieth Infantry, and Second Lieut. Herbert G. Millar, Field Artillery (ordered relieved). They have all performed arduous and valuable service.

Of the exigencies of the service in this direction, attention is invited to the remarks of Major Glassford, although the Chief Signal Officer of the Army does not concur in recommending the appointment of 10 additional volunteer lieutenants for Philippine service. The remedy lies in the increase of the corps and regular details from the line as hereafter recommended.

The demand for superintendents at the larger business and transfer offices is so great, and the retention of the experts now occupying these positions so essential, and in view of the fact that the expiration of the terms of service will soon remove nearly all of these first-class sergeants, I have to suggest that the law approved February 2, 1901, authorizing the appointment of 10 lieutenants for Philippine service be applied as a reward of long and faithful service, and as an inducement for those remaining. The retention of these expert telegraphers is absolutely necessary for the continued efficient operation of these lines.

#### CIVILIAN EMPLOYEES.

While, as shown later, the civil government, with whom the Signal Corps has always worked with perfect harmony, was unable to receive and operate the lines ready for transfer, yet it materially assisted in obtaining local employees, almost entirely Filipinos, by appropriating sums for this purpose.

The enlisted force of the Signal Corps, reduced from 532 at the beginning to 396 at the end of the fiscal year, a net loss of 136, has supplemented these losses as far as possible by civilian employees. On June 30, 1902, there were 301 civilians in service, of whom 13 Caucasians and 6 Filipinos were paid from Army appropriations, and 7 Caucasians and 275 Filipinos from civil appropriations. All employees have served most faithfully, and the Filipinos under supervision work with fidelity and cheerfulness.

#### ENLISTED FORCE IN THE PHILIPPINES.

During the fiscal year out of 297 men who have been discharged only 32 reenlisted, and of these only 17 in the first ten months of the year until the prospect of promotion given by the last Army bill was presented to the men. Repeated requisitions for additional men from the Commanding General, Division of the Philippines, were necessarily unfilled by the Chief Signal Officer of the Army, as the vacancies in the enlisted force have ranged during the year from 50 to 182, there being on July 1 in service 628 men, as against the 810 authorized by law.

The enlisted men of the Signal Corps in the Philippines, as indeed elsewhere, have justified the confidence reposed in them as a body of selected American soldiers. Unusual responsibilities, excessive hours of labor, and hazardous services have taxed their physical and mental qualities to the utmost, but they have responded to every demand in a manner worthy of the highest commendation.

Almost invariably they are men of high intelligence, superior character, and exemplary habits, and their ability, conduct, and courage

mate and circumstances attending this construction were such that special credit is due Lieutenant Gibbs and his party for the completion of this section in the Alaskan winter.

## JUNEAU SECTION.

The location of a military post at Skagway, contiguous to the ill defined boundary line between Alaska and Canada, made it of primary importance that there should be telegraphic communication with Juneau, the capital of Alaska, and with the Federal officials at that point. It seemed best to make this connection by cable instead of land line.

The award for the construction and laying of a submarine cable between Juneau and Skagway, Alaska, was made to Mr. W. R. Brixey, under the usual conditions of no payment until the cable had been operated successfully for thirty days. The cable installed on August 23, 1901, was interrupted after working a few days. Diligent efforts were made by the contractor to restore communication, which were unsuccessful last year owing to the lateness of the season and the prevalence of inclement weather. The cable was, however, placed in good working order and opened to business on June 9, 1902. Ignoring the military value of this cable, its commercial importance to south-eastern Alaska is apparent from the fact that the combined governmental and commercial tariffs for June, 1902, exceeded \$500.

## TANANA SECTION.

This section is yet under construction, and such steps have been taken as will, it is hoped, secure its completion before the end of the present fiscal year.

The difficulties attendant on the connection of the Egbert-Liscum line with the Gibbon-St. Michael line have demanded the serious attention of this office for the past two years. There were three routes under consideration, the first via the Yukon Flats, the second via the Tanana Valley, and the third from Rampart City via Beaver Creek to Circle City, and thence to Fort Egbert.

In a letter dated November 21, 1901, and received at the Signal Office February 10, 1902, Capt. Frank Greene said:

The route via the Yukon Flats is not to be thought of except as a last resort. The solid land is as far from reach of steamboats as the overland route. The route via the Tanana is as bad as the Yukon. There is a prospect of reaching Circle City by the route I have indicated (via Beaver Creek), and thence Fort Egbert.

Captain Greene's opinion was expressed after the failure of two Signal Corps expeditions to pass across the country from Rampart City to Circle City, and while a third was in the field.

In a letter of November 27, 1901, received at the Signal Office March 28, 1902, Captain Greene in forwarding a report of Lieutenant Dichmann, of the Seventh Infantry, on the Tanana route said:

It agrees with the former reports of the marshy nature of all the country between the Tanana and the divide which separates its northern watershed from the Yukon River. I do not think the Tanana route feasible, nor do I intend to attempt it.

Meanwhile the Chief Signal Officer of the Army, feeling that further delay would be most prejudicial to the public interests, personally took up the subject, carefully supplementing his personal knowledge of Alaska by all sources of information available in Washington. As

a result, he concluded that the Tanana Valley afforded the only route over which a telegraph line could be constructed and maintained, and on February 7, 1902, issued telegraphic instructions accordingly.

The Yukon route was plainly impracticable, not only on account of its great length, but from the character of the Yukon Flats, where, new channels continually forming, the river is in places from 30 to 40 miles wide, so that repairs and maintenance would be practically impossible.

The Rampart-Beaver-Circle City route presented insuperable conditions as regards transportation. The exploring parties in this country barely escaped great privations for themselves and loss of their animals, so that the transportation through this rugged region of many tons of telegraph-line material, together with the necessary food subsistence for construction party and forage for animals, was clearly impossible.

On the other hand, the Tanana route presented the obvious advantages of easy transportation in summer by boat as far at least as Bates Rapids. Orders were therefore given to construct the line by this route as far as Bates Rapids and thence across by Delta River should Captain Burnell find that route to be practicable. Later examinations of the upper Tanana disclosed the fact that it was easier to avoid Delta River and build from Bates Rapid along the northern bank to Tanana Junction on the Egbert-Liscum line. Operations were therefore initiated along the Tanana River and their outcome has fully confirmed the soundness of the decision.

First Lieut. George S. Gibbs began work in February, 1902, and has prosecuted it with such judgment and energy that at last advice no less than 100 miles of permanent line had been constructed, while wire for a temporary line had been extended 150 miles beyond.

Arrangements have been made for the distribution of supplies and material this autumn at suitable points from the Tanana as far as the head of Bates Rapids. The work is being coordinated and pushed under the supervision of Capt. George C. Burnell. It is expected that Lieut. George S. Gibbs, working from Fort Gibbon, and Lieut. William Mitchell, operating from Fort Egbert, will keep the field all winter unless extremely unfavorable weather is experienced. Unless the conditions prove exceedingly adverse, temporary communication should be opened in early April, and the entire system be permanently completed by the middle of June, 1903.

The following table shows the amount of work completed on August 24, 1902:

Sections built.	Distance.
	<i>Miles.</i>
Nome to Fort Davis and Port Safety.....	24
Cable, Fort Safety to Fort St. Michael.....	138
St. Michael to Fort Gibbon.....	261
Fort Gibbon to Rampart City.....	61
Fort Egbert to international boundary.....	11
Fort Liscum (Valdes) to Fort Egbert (Eagle City).....	420
Cable, Juneau to Skagway military post.....	121
Fort Gibbon up Tanana Valley.....	100
Total.....	1,121

The connection of the new post at Haines Mission with Skagway by either cable or land line should be made in the spring of 1903.

The accompanying reduced map shows the general Alaskan system, and its connection with the lines of the Canadian government and of the White Pass Railway. The work accomplished has far exceeded the most sanguine expectations of the Chief Signal Officer of the Army. There have been actually built and put in working order in Alaska 1,121 miles of land lines and submarine cables within a period of twenty-four months.

The accomplishment of such results would be most creditable to officers and men concerned therein if Alaska was an ordinary country, for this work included not only surveying, construction, and installation of this length of line, but also involved the manufacture and inspection of enormous quantities of material, instruments, etc., many hundred tons in weight, and their transportation over distances ranging from 4,000 to 7,000 miles.

When one considers, however, the exceedingly difficult physical conditions within the Territory, the work must be considered simply phenomenal. In all parts of Alaska traversed by this great length of line there are not a dozen miles of wagon road. The region through the Tanana Valley, where hundreds of miles of wire have been laid, is marked upon most charts as an unexplored region, and there was in existence until reconnoissances were made by Signal Corps officers no accurate map of the valley. In line building all transportation, apart from the Yukon River, has been by pack animals. On the Valdes section all the wire, insulators, nails, etc., have been carried on mules' backs, some of it a distance of 100 miles and great quantities distances of 50 miles or more.

It has fallen to the lot of the Chief Signal Officer of the Army in his official career to be charged with duties more or less arduous in character, but there has been none which in the extent and scope of its difficulties has exceeded those connected with the construction of this great system of public works in the wilds of Alaska.

The labors and hardships of officers and men can never be duly appreciated save by those having personally known the conditions of Alaskan trails, and the work in question does not appeal to the public imagination as has that of China, Cuba, and the Philippines. Timber is locally abundant, but everything else has to be supplied—food, shelter, and human society. One officer forcibly writes that what appalled him was the enormous distances from one handful of humanity to another in the valley of the Yukon.

It may be added that the Signal Corps is applying to the difficult task of telegraph maintenance and operation in Alaska the most improved devices in way of instruments and equipment. As representative of this equipment a combined buzzer and telegraph set, shown by the inclosed photograph, has been devised by Capt. Edgar Russel, Signal Corps. With this instrument, unless the wire is actually broken, messages can be transmitted despite electrical leakages caused by imperfect grounds.

#### CUBA.

The operations of the Signal Corps of the Army in Cuba terminated with the evacuation of the island on May 20, 1902. The Signal Corps duties, including the operation of the entire telegraphic system of the island, were supervised during the fiscal year by Capt. Otto A. Nesmith. The great increase in commercial business testifies to the growing utility of the entire system.



There were comparatively short extensions—230 miles—of the telegraphic lines during the last year, yet the labor of repair and maintenance was very considerable. The new lines constructed were as follows: Caibarien-Yaguajay, 11 miles; Palmarita and Mayari, 40 miles; Santiago City, 40 miles, and Guantanamo toward Sagua de Tanamo, 102 miles. A submarine cable 16 miles in length was laid between Caibarien and Cayo Frances with a connecting land line of 6½ miles.

For artillery rifle range practice temporary lines are built at Columbia Barracks and land lines between Vedado and Santa Clara.

Through Captain Nesmith's vigilance, efforts on the part of private parties or corporations to establish telephone lines unauthorized by law was prevented, thus subserving the rights of the Government of Cuba, in which, by law, all telegraphic and telephonic rights are vested.

In formulating regulations regarding private lines, a proper discrimination was exercised toward parties operating private telephone lines from which no revenue was derived, and for which informal authority had been previously granted by Spanish officials for their construction and operation.

The efficient character of the work done by the Signal Corps in the construction of the Cuban telegraphic system is illustrated by practically uninterrupted telegraphic transmission throughout the year. Despite the unfavorable climatic conditions and topographical difficulties, there was but one occasion during the year, for a period of five hours only, when the wires between Habana and Santiago were completely interrupted. This occurred during the violent hurricane of September 13 to 14.

The volume of commercial business increased to such an extent that additional wires were necessarily strung on many miles of poles during the year. In order to avoid further expense in this direction a most satisfactory test of duplex instruments was made during March, 1902, and contrary to the pessimistic views of many operators the instruments worked with great success. Steps were promptly taken to duplex the entire line between Habana and Santiago, but owing to unexpected delays, the installation had not been perfected when the transfer of the lines to the Cuban Government took place.

Cordial relations continued between the Signal Corps and the various commercial cable companies operating on the island, although, under instructions from superior authority, it became necessary to decline to accept from, or tender to, the French Cable Company any message to or from any point in the United States, Europe, or beyond. The International Ocean Telegraph Company continued its courteous cooperation in the time service, transmitting regularly for the Signal Corps time signals from the Naval Observatory in Washington at 12 noon of each day, in connection with which was operated the time ball by the captain of the port. Time was furnished with such accuracy and regularity to the U. S. *Eagle* and the U. S. *Yankton* as to facilitate their surveys and elicit complimentary acknowledgement.

The policy of substituting Cuban for foreign employees was steadily pursued during the year, so that on April 30, 1902, but 18 per cent was foreign against 82 per cent Cuban.

One of the most important of minor improvements was the establishment of free delivery of messages, the messengers having been accustomed from time immemorial to exact a fee for delivery.

There were handled during the first nine months of the fiscal year 206,294 commercial and 121,226 official messages, which for an entire year would make proportionately about 440,000. As compared with the previous year, it is worthy of remark that there was an increase of over 20 per cent in commercial messages as against 1 per cent in official messages.

The receipts for commercial messages during the ten months ending April 30, 1902, amounted to \$80,436.63, as against \$64,755.11 for the same period of the previous year, an increase of 25 per cent. The value of official business at the regular tariff rates amounted to \$95,151.53.

Captain Nesmith says:

These figures, however, do not show the entire financial benefit that had occurred to the Government by the maintenance of its line, since had it not been practicable to transact this business over the Government lines, and had it been necessary to send it over the lines of the local cable companies, the cost of the official business alone would have amounted to \$300,158.05, estimated at regular cable rates. A remarkable showing, particularly when it is understood there was no increase in mileage of the lines, and that actual increase in receipts was almost as great as that attained during the previous year, when the limit of advancement in commercial business was supposed to have been reached, and demonstrates the truth of the statements made in the last annual report of the Chief Signal Officer as to the continued and increasing confidence and appreciation of the services in commercial and business circles.

An interesting phase of the financial question, and one that affords a practical demonstration of the thoroughness and the efficiency of the system of auditing and accounting introduced by the service, is also found in the fact that of the total amount of line receipts, necessarily handled by many employees, there was no loss whatever to the Government or to the connecting cable lines, while there was a surplus of \$295.63 in cash turned over to the Cuban Government at the time of the transfer, which had accumulated during the period of military occupation for unused prepaid replies, etc., pertaining to other line business.

The following text map shows the telegraph lines extant on the occupation of the island, which were all so dilapidated as to necessitate reconstruction, and also the existing lines, all in first-class condition, when the telegraphic system was turned over to the Cuban Government. They illustrate more forcibly than words the extent of Signal Corps work during the occupation, and the import and prospective utility of the system to Cuba, both Government and people.

Captain Nesmith says:

RÉSUMÉ OF SIGNAL CORPS WORK IN CONNECTION WITH GOVERNMENT TELEGRAPH LINES  
IN CUBA.

It seems not out of place that there should appear in this, the final report of the chief signal officer, Department of Cuba, a brief statement of the work accomplished by the Signal Corps in connection with the Government telegraph and telephone lines. The official report of each year having treated in detail of the work as it progressed, no attempt is made in this statement to more than draw an outline or to give in the most concise manner a bare summary. To appreciate, however, the difficulties of the undertaking and the full value of what was accomplished, the conditions existing at the time of occupation and methods in vogue under the Spanish régime must be considered.

Under the Spanish Government the postal and telegraph services of the island constitute a bureau known as *cuerpo de comunicaciones* in the department of public works, and the first and a difficult task was to arrange for the separation of the telegraph from the postal service, which was accomplished by the complete reorganization of both branches into entirely distinct and independent services after the plan of similar organizations in the United States.

The telegraph lines of the island were found to be in a most deplorable condition, having been completely destroyed in most of the provinces, or so much out of repair

as to render them practically useless and to necessitate their reconstruction, so that on January 1, 1899, the Signal Corps came into possession of a broken and dilapidated system of telegraph lines confined to the western portion of the island, generally following the railroads, in many places the Government wires being placed on the poles belonging to the railroads, while there was no means of communication between Habana and the eastern portion of the island except that of the slow and irregular mail service.

The few lines working when the Signal Corps took possession were, in addition to their dilapidated condition, operated under the old open circuit and tape system, which was abandoned in the United States in the early days of telegraphy, the messages being handled, or relayed, at frequent intervals, the feat of through transmission between Habana and Santiago, or anything beyond very short distances, never having been accomplished, while the wires were often useless for thirty hours or more, and for all points east of Sancti Spiritus (which could be reached only under favorable conditions) messages had to be sent over the commercial submarine cable line at rates varying from 15 cents to 30 cents a word, according to distance. Moreover, the Continental instead of the American Morse was used, while the general manner of operating and methods of business recently in force were at a total variance with those to which the service had been accustomed.

And in this connection it is interesting to note the peculiar system in vogue, one that might be termed discouragement of the use of telegraph lines by those engaged in business and the people in general, for, contrary to the policy of the commercial telegraph companies, where the additional word rate is always less than that charged on the first ten words, the Spanish rates were as follows:

Telegrams of from 1 to 10 words, including address and signature, 20 cents, and 5 cents more for each word exceeding those mentioned above, regardless of the number of words the message may contain. So that for a 10-word message the rate was 2 cents per word; for a 15-word message, 2½ cents per word; for a 20-word message, 4 cents per word, and so on in increasing ratio, a policy which must have operated strongly against the liberal patronage of the Government wires, and confined their use to cases of absolute necessity.

On December 30, 1898, a general order having been issued by the commanding general of the Division of Cuba placing the maintenance and operation of all telegraph and telephone lines recently the property of the Spanish Government, and the construction and operation of necessary new lines, under the control of the Chief Signal Officer, January 1, 1899, found the Signal Corps in possession of the dilapidated and almost useless system already described and charged with the duty of its improvement and extension in accordance with the new conditions existing.

The first duty of the Signal Corps was, however, to furnish means of rapid communication between the commanding general and the various posts throughout the island, which to some extent had been already begun and anticipated by the building of local telegraph and telephone lines in connection with department headquarters, posts, and encampments in various parts of the island. This necessitated the immediate extension of the telegraph systems and construction of entirely new telegraph and telephone systems, with the view of placing all camps, garrisons, and important cities in electrical communication with headquarters at Habana.

Material necessary for the construction of 500 miles of telegraph line and 5,000 poles had been collected at the Signal Corps supply depot established at Savannah, Ga., in November, 1898, in anticipation of the military occupation of Cuba; and having these supplies ready and near at hand the work was begun at once and pushed with such energy that by April 1 the overland trunk line between Habana and Santiago was completed, and on that date the Secretary of War, who was in Santiago, sent the first message over the line to the President of the United States. It ran as follows:

"The telegraph line constructed by the Government between Habana and this place has been this day opened for business, thus giving better facilities for communication between Washington and Santiago than heretofore. I know you will join in congratulations to the officers who have superintended the construction and to General Wood, who is nearer communication with the outside world than ever before."

The Chief Signal Officer of the Army, then inspecting the work of the Signal Corps in Cuba, cabled from Habana to the War Department on the same day:

"The overland telegraph line to Santiago completed at 10.30 this morning. The system of military telegraph lines is practically completed, there now being in operation nine lines crossing the island from north to south and one trunk line running through the center of the island from Pinar del Rio, at the extreme western end, through Habana and Santiago to Baracoa, at the extreme eastern end. General Brooke can now reach, over his own lines, every military command and every town of importance in Cuba."

And the Inspector-General of the Army, who was also on the ground, referred to the work of the Signal Corps in the islands of Cuba and Porto Rico as follows:

"The good work of the Signal Corps in the two islands is everywhere in evidence, and the completion of the overland telegraph line from Pinar del Rio to Santiago de Cuba and on to Baracoa will materially expedite government business."

All posts and camps telegraphically connected and the main line from Habana to Santiago in operation, other improvements were completed as rapidly as possible, so that on June 3 the Signal Corps was operating 2,500 miles of telegraph lines, of which over 600 miles was absolutely new and much of the balance reconstructed.

While this work, owing to the necessary haste and difficulties of construction, such as lack of transportation facilities, the uninhabited, mountainous, and forest countries, traversed by numerous streams and rivers, was not of the best and in many instances not of a permanent character, and which required subsequent reconstruction, still it answered its purpose and reflected credit on those who had accomplished it. The work thus far had been generally done by the Volunteer Signal Corps, men who had been selected on account of their telegraphic and electrical knowledge and experience, and the muster-out of the enlisted force during April and May caused, therefore, considerable embarrassment, scarcely 5 per cent of the volunteers being willing to reenlist or to remain on the island. This rendered it necessary to secure the services of civilian operators, and these soon took advantage of the situation to threaten a strike unless wages were increased beyond a figure possible for the Government to grant, and a cessation of operations was narrowly averted by the enlistment of a force of operators into the Signal Corps of the Regular Army sufficient to place the system on a firm basis.

As it was the intention of the Government, however, to place the telegraph lines of Cuba upon a permanent basis and similar to the great telegraph systems of the United States, upon which their maintenance and operation could be continued by the new government, as the enlisted force was withdrawn their places were filled by civilians, and when practicable by Cubans, and during the years of military occupation this end has been constantly kept in view, the policy of the system having been to so conduct its business that, while the official business of the Government was in no way impeded, the general public should be also benefited, and the people, to whom the best possible service was given, for which there was a moderate charge, be encouraged in the use of its wires.

Lines were, therefore, improved and extended and offices opened and maintained, not only where the amount of business warranted, but also where general commercial benefit and public interests demanded, while the system of free delivery of messages, maintained in all of the large cities and extended in the city of Habana to the distant suburbs of Vedado, Cerro, and Jesus del Monte stimulated business and brought good returns.

Old lines were reconstructed and new lines built in the best manner that circumstances would permit and equipped with improved modern appliances, automatic repeaters and duplex instruments replacing the cumbersome and unsatisfactory open circuit tape register system. Business has been dispatched with a regularity and promptness formerly unknown and in striking contrast to the delays of hours, and even of days, of common occurrence under the old régime, while approved methods of auditing and accounting were introduced under which all moneys received from commercial business have been promptly covered into the treasury.

Improvements continued until at the time of transfer a stable and permanent system had been constructed, the length of the telegraph wires in operation on the island amounting to nearly 3,500 miles, extending from San Juan y Martinez on the western end of the island to Cape Maysi on the extreme eastern end, with every point or seaport of business importance on the island electrically connected (the map which accompanies this report and forms Appendix "A" shows the lines constructed by the Signal Service and in operation May 20, 1902, while the inset map shows the old Spanish lines standing, though dilapidated and subsequently reconstructed by the Signal Corps, at the time of military occupation, January 1, 1899), while in addition to the telegraph lines important telephone systems of many miles in extent were constructed and maintained where necessary for the proper transaction of public business, the government cables were repaired and renewed and kept in operation, and new cables, of which the cable from Caibarien to the Cayo Frances was the most important, laid as the best interests of the island required.

As to the offices and business, Captain Nesmith continues:

On May 20, 1902, there were 90 offices in operation and open for business, while the employees numbered 316, of whom 144 were operators (ranging from 18 at Habana to 1 at the smallest stations), 41 were messengers, and 109 were occupied in the

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Of the exigencies of the service in this direction, attention is invited to the remarks of Major Glassford, although the Chief Signal Officer of the Army does not concur in recommending the appointment of 10 additional volunteer lieutenants for Philippine service. The remedy lies in the increase of the corps and regular details from the line as hereafter recommended.

The demand for superintendents at the larger business and transfer offices is so great, and the retention of the experts now occupying these positions so essential, and in view of the fact that the expiration of the terms of service will soon remove nearly all of these first-class sergeants, I have to suggest that the law approved February 2, 1901, authorizing the appointment of 10 lieutenants for Philippine service be applied as a reward of long and faithful service, and as an inducement for those remaining. The retention of these expert telegraphers is absolutely necessary for the continued efficient operation of these lines.

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While, as shown later, the civil government, with whom the Signal Corps has always worked with perfect harmony, was unable to receive and operate the lines ready for transfer, yet it materially assisted in obtaining local employees, almost entirely Filipinos, by appropriating sums for this purpose.

The enlisted force of the Signal Corps, reduced from 532 at the beginning to 396 at the end of the fiscal year, a net loss of 136, has supplemented these losses as far as possible by civilian employees. On June 30, 1902, there were 301 civilians in service, of whom 13 Caucasians and 6 Filipinos were paid from Army appropriations, and 7 Caucasians and 275 Filipinos from civil appropriations. All employees have served most faithfully, and the Filipinos under supervision work with fidelity and cheerfulness.

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The enlisted men of the Signal Corps in the Philippines, as indeed elsewhere, have justified the confidence reposed in them as a body of selected American soldiers. Unusual responsibilities, excessive hours of labor, and hazardous services have taxed their physical and mental qualities to the utmost, but they have responded to every demand in a manner worthy of the highest commendation.

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operators who declined to reenlist. Telegraph schools were opened in August, 1901, and several hundred enlisted men ordered to duty therein.

Major Glassford reports that—

They have generally failed to make good operators. The school at Calapan, Mindoro, has, however, been quite successful, and several men from it have transferred to the Signal Corps, but not in sufficient number to supply the needed operators.

A school to instruct natives as operators was also established, but none have qualified, and the best have acquired only a rate of receiving seven words per minute. No encouragement whatever is therefore to be expected from this source within a reasonable time.

#### CITY OF MANILA.

The telegraphic and telephonic facilities of the city of Manila have been extended and improved during the past year. There are no less than 51 miles of wire, partly lead-covered cables, on which are installed six telegraph offices and 177 telephones. The importance and appreciation of this telephone service by the civil government and the military officers are shown by the fact that there has been an average of 470 calls for the fifteen hours of daily service. The system not only includes Manila, but the Marinduque Valley and the provinces of Cavite and Rizal.

The central telegraph office has been fitted up with modern appliances, as shown by the inclosed photograph. Otherwise the enormous business centering in Manila could not be properly transacted. The generating plant is a source of electric power for all telegraph lines radiating from Manila, and also furnishes the current for lighting all the barracks, offices, and quarters at the Cuartel Infanteria.

#### CABLE SHIP BURNSIDE.

During the fiscal year the Signal Corps operations on the U. S. transport *Burnside*, which has been fitted up at great expense as a cable ship, have been under the supervision of Capt. George O. Squier, Signal Corps, Capt. L. D. Wildman, Signal Corps, and First Lieut. Charles de F. Chandler, Signal Corps, the latter officer reporting on the operations for the year.

Without impairing materially its use as a transport, the *Burnside* has performed extensive work of extreme value. The Signal Corps officer, in addition to performing the duties of cable installation and repairs, has also performed the duties of quartermaster and commissary to the advantage of both the Signal Corps and the Quartermaster's Department.

The following cables have been laid during the year:

Catbalogan (Samar) to Carigara (Leyte), 45 miles, July 13 to 14.  
 Catbalogan (Samar) to Calbayog (Samar), 37 miles, July 15 to 16.  
 Argao (Cebu) to Loon (Bohol), 14 miles, July 17.  
 Malabang (Mindanao) to Parang Parang (Mindanao), 24 miles, July 23 to 24.  
 Malabang (Mindanao) to Tucuran (Mindanao), 48 miles, July 25 to 26.  
 Calapan (Mindoro) to Batangas (Luzon), 30 miles, July 8.  
 Boac (Marinduque) to Calapan (Mindoro), 45 miles, July 15 to 16.  
 Calbayog (Samar) to Palanog (Masbate), 75 miles, July 5 to 8.  
 Palanog (Masbate) to Sorsogon (Luzon), 62 miles, September 10 to 13.  
 Legaspi (Luzon) to Bacon (Luzon), 29 miles, September 14 to 17.  
 Maasin (Leyte) to Surigao (Mindanao), 56 miles, September 25 to 30.  
 Zamboanga (Mindanao) to Isabela (Basilan), 18 miles, October 4 to 5.  
 Jolo (Jolo) to Siassi (Siassi), 50 miles, October 7 and 8.  
 Milegros (Masbate) to Capiz (Panay), 74 miles, November 2 to 5.

These 14 new cables laid during the year aggregate 607 miles. The *Burnside* traveled 9,905 miles for laying and repairing cables; 8,423 miles on transport duty carrying passengers and freight for the Quartermaster's Department. In addition the *Burnside* repaired 13 cables: The Malabang-Tucuran cable, on July 26; the Catbalogan-Carigara cable, on August 6; the Zamboanga-Tucuran cable, on July 21; the Jolo-Zamboanga cable, August 1; Maasin-Surigao cable, August 14 to 19; Manila-Cavite cable, November 23; Zamboanga-Jolo cable, February 24 and 25; Zamboanga-Tucuran cable, March 25 and 26; Misamis-Dumaguete cable, April 13; Misamis-Iligan cable, April 14; Malabang-Parang Parang, April 19; Zamboanga-Isabela cable, April 20 to 29; Ormoc-Cebu cable, May 5.

The installation and continued maintenance of the extensive cable system of the Philippine Archipelago has been extraordinarily successful, far exceeding the most sanguine expectations of the Chief Signal Officer of the Army. It is well known that commercial cables are transferred from the establishment where manufactured direct to the cable ship and thence to the bottom of the sea. The Signal Corps has been seriously handicapped by the necessity of twice as many transfers, which more than doubles the chance of injury to, and necessarily shortens the life of, the cable. The cable now goes from the manufacturing establishment to a lighter or car, thence to a commercial transport, then to the cable ship, and finally to the ocean bed. Indeed, some of the cable used has been handled no less than seven times before it was laid. The conditions of transfer by commercial steamers to Manila have been such as, in the opinion of foreign cable experts, should totally destroy the usefulness of the cable. It is officially reported that one large lot of cable thus shipped from New York to Manila, not only was covered with heavy extraneous freight and consequently without ventilation, but in passing through the Tropics the entire mass was heated to such an extent that frequent tests showed the temperature of the hold to be 92° F.

The high physical character of the American-made cable is illustrated, however, by the fact that such cables, after subjection to extreme vicissitudes of physical condition, have worked uninterruptedly for periods ranging from one to three years.

The presence of a properly equipped cable ship made it possible to restore communications speedily at a minimum of expense. The interruptions referred to lasted, as a rule, for two or three days only, although in the case of Maasin-Surigao, where 2 miles of cable had to be replaced owing to the extensive earthquake, there was a delay of five days. In comparison with this instance the Manila-Iloilo, belonging to the Eastern Extension Company, was interrupted some twenty-nine days. An estimate can be formed of the cost of repairing these 13 cables had it been necessary to hire a cable ship of the Eastern Extension Company, from the fact that the expense account of the Eastern Extension Company's cable ship in proceeding from Singapore to Cavite to repair the cable cut by Admiral Dewey amounted to £855, about \$4,200; this in a case where there was no preliminary work and no dredging, but only the splicing of the cable.

In order to insure the proper maintenance of these cables they should be regularly inspected and tested, cable buoys should be repaired and replaced, and other usual work connected with cable repairs and testing be carried on.

The policy announced by Major-General Chaffee to the Chief Signal



only lines of any importance that came into our possession were several hundred miles of dilapidated and antiquated lines in the Cagayan Valley and along the west coast of Luzon.

Applying itself to the problem of establishing a suitable system of telegraphic intercommunication, the Signal Corps of the Army has constructed and laid from August, 1898, to June 30, 1902, approximately nine thousand miles of lines of telegraph, telephone, and submarine cable. About one-third of this mileage consisted of extensive temporary field lines erected for the purpose of maintaining communication between flying military columns and their bases, the latter being always in communication by means of permanent lines with division headquarters at Manila.

In connection with the withdrawal of the military forces from certain territory, the temporary lines were in most cases recovered, but in other cases destroyed by the hostile operations of the insurgents.

On June 30, 1902, the permanent system maintained and operated by the Signal Corps aggregated 6,434 miles, of which 5,108 were land lines and 1,326 miles cable.

#### EXTENT AND LOCATION OF TELEGRAPH SYSTEM.

A miniature chart of these lines is incorporated in the text herewith. The location and length of the submarine cables are as follows:

	Miles.
Laguna de Bay (Luzon):	
Calamba-Los Banos .....	4
Calamba-Santa Cruz .....	18
Santa Cruz-Siniloan .....	9
Manila-Cavite (Luzon) .....	8
Naic-Corregidor Island (Luzon) .....	12
Guinayangan-Pasacao (Luzon) .....	51
Legaspi-Bacon (Luzon) .....	29
Sorsogon (Luzon)-Palanog (Masbate) .....	62
Batangas (Luzon)-Calapan (Mindoro) .....	30
Calapan (Mindoro)-Boac (Marinduque) .....	45
Palanog (Masbate)-Calbayog (Samar) .....	75
Calbayog (Samar)-Catbalogan (Samar) .....	37
Catbalogan (Samar)-Carigara (Leyte) .....	45
Ormoc (Leyte)-Liloan (Cebu) .....	72
Liloan (Cebu)-Cebu (Cebu) .....	13
Milagros (Masbate)-Capiz (Panay) .....	74
Argao (Cebu)-Loon (Bohol) .....	14
Maasin (Leyte)-Surigao (Mindanao) .....	56
Oslob (Cebu)-Dumaguete (Negros) .....	17
Dumaguete (Negros)-Misamis (Mindanao) .....	115
Misamis (Mindanao)-Lintogup (Mindanao) .....	23
Misamis (Mindanao)-Iligan (Mindanao) .....	32
Iligan (Mindanao)-Cagayan (Mindanao) .....	60
Tucuran (Mindanao)-Malabang (Mindanao) .....	48
Malabang (Mindanao)-Parang Parang (Mindanao) .....	24
Tucuran (Mindanao)-Zamboanga (Mindanao) .....	158
Zamboanga (Mindanao)-Jolo (Jolo) .....	100
Zamboanga (Mindanao)-Isabela (Basilan) .....	18
Jolo (Jolo)-Siassi (Siassi) .....	50

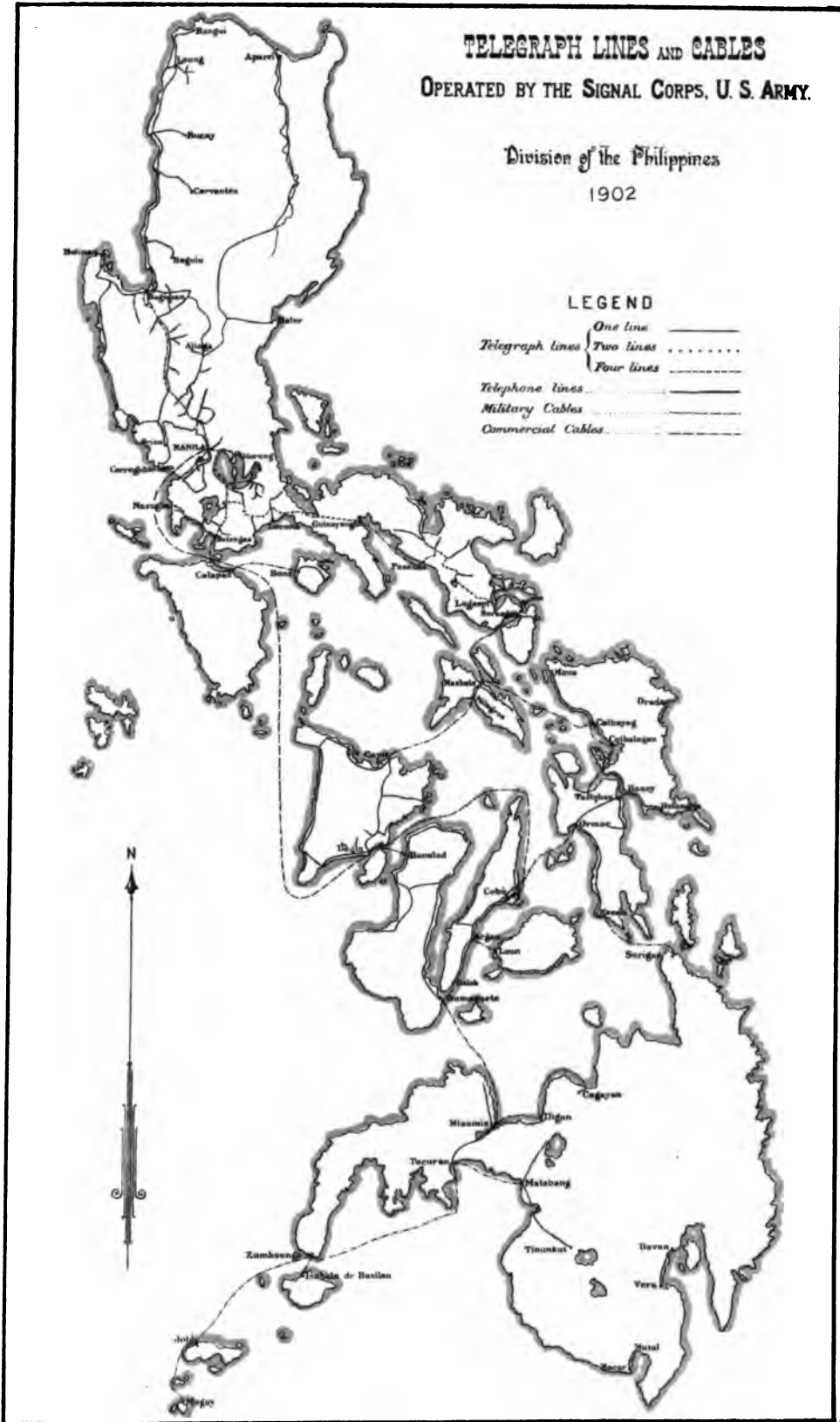
This system affords prompt communication and consequently effective executive control, not only for the army but for the civil government, from Aparri and Bangui on the extreme north coast of Luzon to the island of Siassi in the extreme south within 60 miles of Borneo. All the important islands of the archipelago, except Romblon and Palawan, are connected, and even the former is to be reached by cable.

# TELEGRAPH LINES AND CABLES OPERATED BY THE SIGNAL CORPS, U. S. ARMY.

Division of the Philippines  
1902

## LEGEND

- One line \_\_\_\_\_
- Telephone lines { Two lines .....  
Four lines -----
- Military Cables \_\_\_\_\_
- Commercial Cables -----



\_\_\_\_\_

There have been constructed and laid during the fiscal year 1,044 miles of land line and 618 miles of submarine cable, aggregating 1,662 miles. There are 281 stations on these lines over which official messages may be transmitted; many of them, however, are telephone lines owing to the extreme difficulty of retaining in service skilled telegraph operators for the given pay.

The extension of lines, whether cable or land, has been limited to military necessities, and the military system is practically complete to-day save certain land lines necessary for operations in Mindanao, and the extension of a cable to be laid at the expense of the civil government from Mindanao to Romblon.

Major Glassford invites attention to the additional lines necessary to fully perfect the civil system in the islands where the adoption of the policy of the commercial companies looking to alternate routes would doubtless be in the interest of the archipelago. A short cable of some 20 miles between Panay and Negros would give an alternate route to the important island of Panay, while a double outlet would be given Mindanao whenever lines between Surigao and Cagayan can be established. On northern Luzon a double route would be insured by the construction of a short compound line between Aparri and Cape Bojeador.

One of the greatest difficulties in the efficient management of the telegraph system has been the lack of trained Signal Corps officers. The Chief Signal Officer of the Army has simply been unable to meet the repeated and urgent requests of the major-general commanding in the Philippines for additional Signal Corps officers. It may be pointed out that of the 35 officers of the corps 34 of them have had foreign service, and one of them is now in his second tour of duty in the Philippines.

There are now 11 officers of the Signal Corps, and two detailed officers of the line, serving in the Philippines charged with the maintenance and repair of 6,500 miles of line located on 13 separate islands. The daily work of these officers exceeds twelve hours and frequently runs to sixteen, and it covers every day in the year, Sundays and holidays; this in a tropical country where nature wages systematic war against the health and strength of the individual. There is but one outcome, which is briefly alluded to under the "Reorganization of the Signal Corps," that is, deterioration and breakdown with certainty of early retirement or early death for a corps of officers, which in its physical qualities was three years since unsurpassed in any army in the world. One-quarter of the officers of the Signal Corps are to-day disabled from Philippine service.

The effort to replace these officers from the line has been practically a failure, despite the cordial cooperation of the Secretary of War, who has approved every recommendation of the Chief Signal Officer of the Army in this respect, and of the major-general commanding the Philippines, who has likewise exerted his good offices in vain. The Secretary of War directed the detail of four competent line officers from officers serving in the Philippines, but only two such could be obtained, General Chaffee cabling that it was impossible to obtain suitably qualified officers for the work. By diligent efforts one officer has lately been obtained in the United States, and another has been ordered to relieve an officer already detailed, Lieut. Herbert G. Millar, whose relief was ordered just as he was becoming valuable.

The officers who have served with the corps during the fiscal year are: Capt. G. W. S. Stevens, Artillery Corps (now relieved); First Lieut. Evan H. Humphrey, Seventh Cavalry; First Lieut. Frederick M. Jones, Ninth Cavalry; and Second Lieut. James A. Higgins, Thirtieth Infantry, and Second Lieut. Herbert G. Millar, Field Artillery (ordered relieved). They have all performed arduous and valuable service.

Of the exigencies of the service in this direction, attention is invited to the remarks of Major Glassford, although the Chief Signal Officer of the Army does not concur in recommending the appointment of 10 additional volunteer lieutenants for Philippine service. The remedy lies in the increase of the corps and regular details from the line as hereafter recommended.

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displayed from one end of the archipelago to the other have won numberless encomiums from officers of the line of the Army, in whose interest their labors are performed.

While other arms of the service are relieved at regular intervals, military exigencies have been such that, although authority to the same effect has been granted by the Secretary of War, relief has not been possible for the Signal Corps in the Philippines. Of 352 men dropped from the rolls of the Signal Corps in the Philippines during the fiscal year only 3 have been granted furloughs, and only 8 relieved for duty in the United States. Where only 3 per cent of the men in the Signal Corps can look to relief annually the future offers no prospects, and as a result one-half of the command in the Philippines is now composed of recruits. Only one desertion has been reported during the year, and few grave offenses have been committed.

As an illustration of the trying conditions attending the service of enlisted men at remote stations, Major Glassford says:

When troops are withdrawn from posts at which it is necessary to continue a telegraph station for the purpose of relaying messages to points occupied, much hardship is worked upon the operators and linemen retained at the posts, and they are deserving of much credit for the manner in which they have been undergoing the same. The Filipinos having a diet of their own, it is almost impossible for an American to secure his subsistence in a town not occupied by the troops, unless he have the privilege of purchasing commissaries from the constabulary, which privilege is to be secured, if possible, for operators and linemen of the Signal Corps stationed at posts not occupied by the military. The work of cooking his own meals is also added to the many duties of the operators upon the withdrawal of troops. At Guinayagan, lately abandoned by the military, the Signal Corps has 4 operators and 1 lineman; the lineman has a stretch of 35 miles to keep in repair—two lines, 70 miles of wire—and each operator handles an average of 130 messages per day.

Lieutenant Wallace pays the following tribute to his men:

The enlisted men of the Signal Corps, as operators in ungarrisoned towns and as linemen, are thrown a great deal on their own resources. They are trustworthy and loyal and have a high esprit de corps. Instances of marked executive ability, as well as personal bravery, are common.

It is often necessary, owing to the scarcity of officers, to construct new lines and make expensive repairs to old lines under first-class sergeants. This means the employment of labor, contracting for poles, selecting routes, opening offices, and all other duties usually performed by an officer. In order to perform all these duties satisfactorily, the sergeants must speak three languages: English, Spanish, and Visayan. The construction and line men also acquire the native tongue as a necessity, as but little Spanish is spoken by the natives in the interior.

The work is hard and the hours of duty are long, and personal danger is sometimes great. The country offers none of the ordinary pleasures to a soldier when off duty, and the pay should be increased either by a larger percentage of non-commissioned officers or an increase to their present pay.

The men take ambushes and attacks by natives as a matter of course, and display a great deal of ingenuity in their efforts to entrap the wire cutters and ambushing parties. A notable case of this occurred between Abuyog and Dulag, Leyte. First-class Sergt. Paul J. Zaehringer was patrolling a piece of line, which he had reason to believe had been cut by insurgents. On nearing a point where he thought the trouble was likely to occur, and by exercising a little care, he surprised the insurgents, who were expecting his party to come up the road as usual. As a result, some 20 insurgents were killed, 8 prisoners and a number of rifles taken, and the line has not been cut in that section since, where before it had been of almost daily occurrence.

#### TELEGRAPH SCHOOLS.

In hopes of thus filling vacancies in the ranks of the Signal Corps, persistent efforts have been made through the cooperation of General Chaffee to train enlisted men from the line so as to replace the skilled

operators who declined to reenlist. Telegraph schools were opened in August, 1901, and several hundred enlisted men ordered to duty therein.

Major Glassford reports that—

They have generally failed to make good operators. The school at Calapan, Mindoro, has, however, been quite successful, and several men from it have transferred to the Signal Corps, but not in sufficient number to supply the needed operators.

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Without impairing materially its use as a transport, the *Burnside* has performed extensive work of extreme value. The Signal Corps officer, in addition to performing the duties of cable installation and repairs, has also performed the duties of quartermaster and commissary to the advantage of both the Signal Corps and the Quartermaster's Department.

The following cables have been laid during the year:

- Catbalogan (Samar) to Carigara (Leyte), 45 miles, July 13 to 14.
- Catbalogan (Samar) to Calbayog (Samar), 37 miles, July 15 to 16.
- Argao (Cebu) to Loon (Bohol), 14 miles, July 17.
- Malabang (Mindanao) to Parang Parang (Mindanao), 24 miles, July 23 to 24.
- Malabang (Mindanao) to Tucuran (Mindanao), 48 miles, July 25 to 26.
- Calapan (Mindoro) to Batangas (Luzon), 30 miles, July 8.
- Boac (Marinduque) to Calapan (Mindoro), 45 miles, July 15 to 16.
- Calbayog (Samar) to Palanog (Masbate), 75 miles, July 5 to 8.
- Palanog (Masbate) to Sorsogon (Luzon), 62 miles, September 10 to 13.
- Legaspi (Luzon) to Bacon (Luzon), 29 miles, September 14 to 17.
- Maasin (Leyte) to Surigao (Mindanao), 56 miles, September 25 to 30.
- Zamboanga (Mindanao) to Isabela (Basilan), 18 miles, October 4 to 5.
- Jolo (Jolo) to Siassi (Siassi), 50 miles, October 7 and 8.
- Milegros (Masbate) to Capiz (Panay), 74 miles, November 2 to 5.

These 14 new cables laid during the year aggregate 607 miles. The *Burnside* traveled 9,905 miles for laying and repairing cables; 8,423 miles on transport duty carrying passengers and freight for the Quartermaster's Department. In addition the *Burnside* repaired 13 cables: The Malabang-Tucuran cable, on July 26; the Catbalogan-Carigara cable, on August 6; the Zamboanga-Tucuran cable, on July 21; the Jolo-Zamboanga cable, August 1; Maasin-Surigao cable, August 14 to 19; Manila-Cavite cable, November 23; Zamboanga-Jolo cable, February 24 and 25; Zamboanga-Tucuran cable, March 25 and 26; Misamis-Dumaguete cable, April 13; Misamis-Iligan cable, April 14; Malabang-Parang Parang, April 19; Zamboanga-Isabela cable, April 20 to 29; Ormoc-Cebu cable, May 5.

The installation and continued maintenance of the extensive cable system of the Philippine Archipelago has been extraordinarily successful, far exceeding the most sanguine expectations of the Chief Signal Officer of the Army. It is well known that commercial cables are transferred from the establishment where manufactured direct to the cable ship and thence to the bottom of the sea. The Signal Corps has been seriously handicapped by the necessity of twice as many transfers, which more than doubles the chance of injury to, and necessarily shortens the life of, the cable. The cable now goes from the manufacturing establishment to a lighter or car, thence to a commercial transport, then to the cable ship, and finally to the ocean bed. Indeed, some of the cable used has been handled no less than seven times before it was laid. The conditions of transfer by commercial steamers to Manila have been such as, in the opinion of foreign cable experts, should totally destroy the usefulness of the cable. It is officially reported that one large lot of cable thus shipped from New York to Manila, not only was covered with heavy extraneous freight and consequently without ventilation, but in passing through the Tropics the entire mass was heated to such an extent that frequent tests showed the temperature of the hold to be 92° F.

The high physical character of the American-made cable is illustrated, however, by the fact that such cables, after subjection to extreme vicissitudes of physical condition, have worked uninterruptedly for periods ranging from one to three years.

The presence of a properly equipped cable ship made it possible to restore communications speedily at a minimum of expense. The interruptions referred to lasted, as a rule, for two or three days only, although in the case of Maasin-Surigao, where 2 miles of cable had to be replaced owing to the extensive earthquake, there was a delay of five days. In comparison with this instance the Manila-Iloilo, belonging to the Eastern Extension Company, was interrupted some twenty-nine days. An estimate can be formed of the cost of repairing these 13 cables had it been necessary to hire a cable ship of the Eastern Extension Company, from the fact that the expense account of the Eastern Extension Company's cable ship in proceeding from Singapore to Cavite to repair the cable cut by Admiral Dewey amounted to £855, about \$4,200; this in a case where there was no preliminary work and no dredging, but only the splicing of the cable.

In order to insure the proper maintenance of these cables they should be regularly inspected and tested, cable buoys should be repaired and replaced, and other usual work connected with cable repairs and testing be carried on.

The policy announced by Major-General Chaffee to the Chief Signal



Officer of the Army that, retaining the transport *Burnside* for inter-island service, she would be at any time available for cable repairs is the most economical and satisfactory solution of the question.

During the year the *Burnside* spent 42 per cent of her actual time on transport duties and 58 per cent in cable operations. It is not probable that more than 20 per cent of the ship's time will be needed for cable work the coming year, but the necessity of this or another transport properly equipped for cable is absolutely indispensable for the cable system. As extended portions of the archipelago are subject to earthquakes, frequent interruptions of cable are probable. Any alterations or changes which would reduce the tanks below two, or which would interfere with the cable machinery, would be, in the opinion of the Chief Signal Officer, a great mistake.

DEPARTMENT OF NORTH LUZON.

This department was formed by the consolidation of North Luzon and South Luzon. The latter department until its discontinuance, November 20, 1901, had as its signal officer Capt. Carl F. Hartmann, Signal Corps.

In addition to the work of his department, Captain Hartmann handled the line work of Manila, which from its perplexity and extent was a most difficult problem. Among other installations made by him was a large quantity of twenty-pair lead covered cable, which to a considerable extent was of necessity aerial instead of underground. In addition Captain Hartmann most efficiently supervised the transfer of the Signal Corps electrical plant, consisting of dynamos, storage batteries, and other expensive material from the old to the new location. Under his efficient control the interruption to lines caused by the violent typhoon of October 14 was restored to complete working order throughout the department by the night of October 15. Captain Hartmann for a time also performed the important duties of traffic manager for a military telegraph and telephone system of the division, regulating the transmission of messages, determining the routes, forming the circuits, etc. He was relieved on May 26, 1902, of this duty by Capt. C. McK. Saltzman, whose aptitude and technical knowledge have made him unusually valuable in this connection.

On the reorganization of departments, May 5, 1902, Maj. W. A. Glassford, in addition to his duties as signal officer of the division, assumed those of the Department of North Philippines, having as his principal assistant First Lieut. Frank E. Lyman, jr., Signal Corps. Lieutenant Lyman presents the formal report for the department. In this he says:

During the year the principal field operations in which the Signal Corps participated were in the fourth separate brigade in the campaign against General Bollarimo, in Albay Province, and in the third separate brigade in the campaign against General Malvar, in Batangas, Laguna, and Tayabas provinces. In the latter brigade, by direction of the commanding general, some 70 miles of field lines were constructed and operated by telephones and kits of type "D." Nearly every station in the command was connected with the general telegraph system, making it possible for the commanding general to instantly communicate with station commanders. A cable was also laid from Los Banos, Laguna, to Maligi Island, in Laguna de Bay, a distance of 9 miles. Some of the above-mentioned field lines have been turned over to the constabulary since the surrender of Malvar, and others will be recovered.

It may be added that Lieutenant Lyman served with great credit in the field with the third separate brigade, December to January. During this campaign Corpl. James Murphy and Privates Michael Doran

and Hildeman L. Johnson displayed conspicuous gallantry under fire at Canderlaria, Tayabas, on December 10, 1901, for which they received the written commendation of Brig. Gen. J. F. Bell and Maj. Gen. Adna R. Chaffee.

Lieutenant Lyman reports that the natives have been employed as much as possible in line building and repair, and states that—

When constantly under the eye of signalmen the work of natives is satisfactory; when left alone it is not.

On November 11, 1901, the division commander issued General Orders, No. 347, directing the chief signal officer of the division to issue to isolated stations upon the coast with which there is no telegraphic communication and to which no regular boats apply frequently the letters "D" and "B" of the International Code of Signals to be used in communication with the Navy and ships of the Army transport service when in need of their assistance. The following stations were equipped: Currimao, Iba, Ballar, Binangonan, Cubat, Matnao, Bulan, Donosal, Sorsogon, Bagay, Daet, Capalonga, Paracale, Catanauan, Pitogo, Loboo, Romblon, Abra de Ilog, Calapan, Pola, Palaun, Manjarin, Naujan, and Pinamalayan.

Lieutenant Lyman's report shows that owing to lack of officers, many districts have been put in charge of sergeants, who are responsible not only for the condition of lines, but the preparation of pay rolls, etc. While the necessities of the occasion oblige Signal Corps sergeants in charge of telegraph offices to receive and to be accountable for tariffs on telegrams, yet it is contrary to the public policy to intrust to the enlisted men of the Army insular or other funds for disbursement, and although restriction of this practice causes annoying delays and vexatious discussions between the noncommissioned officers and the debtors, yet such restrictions have been found necessary.

#### DEPARTMENT OF SOUTH PHILIPPINES.

The Department of South Philippines, formed from the departments of Visayas and of Mindanao and Jolo, has been efficiently served by Capt. Charles T. Parker, Corps of Artillery, Capt. Joan H. Pershing, First Cavalry, and Maj. James F. Pettit, inspector-general of the Department of Mindanao and Jolo. To these officers credit is due for the intelligent interest with which they assumed and performed duties of a technical character, which were handled by them in a most satisfactory manner. Of the Signal Corps officers, Capt. Leonard D. Wildman was department signal officer until March 15, 1902, when he was relieved by First Lieut. Charles S. Wallace, Signal Corps, who remained on duty at the end of the year. Captain Wildman's administrative ability and technical knowledge enabled him to handle the affairs of the department in a most efficient manner under adverse conditions in times of great difficulty. First Lieut. Charles S. Wallace, in assuming the duties of signal officer, Department of South Philippines, brought to them an unusually wide experience gained in nearly two year's field and office work in the islands of Cebu, Masbate, and Samar. Lieutenant Wallace has distinguished himself both with troops in the field and in technical work connected with the extensive telegraph lines and cables of the department.

Commenting on wire interruptions, Lieutenant Wallace reports that—

On the 1st of July the military situation on the island of Cebu was in an extremely unsatisfactory condition. It became gradually worse, so far as the Signal Corps was

concerned, culminating in the destruction of almost all of the lines south of Cebu. This attack on the lines was apparently preconcerted, and between 12 and 13 miles of line, cut in several different places, was carried away, insulators broken, and poles cut down. Immediate steps were taken by the military authorities to furnish sufficient guard for the linemen, and in three days these lines were repaired and in working order.

Speaking of troublesome conditions in Leyte, he continues:

The following extract from the departmental log for the three months, from January 1 to March 31, 1902, will illustrate what wire cutting by insurgents means and the amount of work necessary to keep lines in working order:

Date.	Place.	Cause.
Jan. 1	Ormoc-Baybay, Leyte	4 poles cut; 6 miles wire carried away.
4	do	4 miles wire carried away.
7	do	200 yards wire carried away.
13	do	300 yards wire carried away.
17	do	Wire cut.
18	do	2 poles cut; 300 yards wire carried away; repair party fired on.
30	do	Wire cut; party fired on.
Feb. 5	do	200 yards wire carried away.
19	Ormoc-Jaro, Leyte	Wire cut; party ambushed.
Mar. 1	Hindang, Leyte	6 miles wire carried away.
3	Baybay-Matalom, Leyte	1 mile wire carried away.
6	South of Ormoc, Leyte	100 yards wire carried away.
8	Hilongas, Leyte	1 1/4 miles wire carried away.
10	Ormoc-Jaro, Leyte	1 pole carried away.
11	North of Ormoc, Leyte	Iron poles and wire carried away.
15	do	1/2 mile wire carried away; repair party fired on.
18	Baybay-Matalom, Leyte	1/2 mile wire carried away.
22	Hilongas, Leyte	1/2 mile wire carried away.
26	Baybay-Ormoc, Leyte	200 yards wire carried away.
26	Ormoc-Caridad, Leyte	180 yards wire carried away.
27	do	240 yards wire carried away.
27	Ormoc-Baybay, Leyte	5 spans wire carried away; cut twice at 12-hour intervals; party fired on.
28	do	200 yards wire carried away.

Of Signal Corps work during the Samar campaign Lieutenant Wallace says:

The island of Samar was in a state of active insurrection at the beginning of the fiscal year. The only towns at that time with telegraph communication were Catbalogan and Calbayog. At the time of the installation of the cable from Cebu to Ormoc a short length of cable was also laid across the straits separating Leyte and Samar, near Tacloban. In July this was extended by land line to Basey, giving that place telephone connection with Tacloban. Later a telephone line was constructed from Calbayog to the mouth of the Gandara River, but after a few months was abandoned, owing to the withdrawal of troops from the latter place. On November 1 the brigade commander submitted an elaborate scheme comprising some several hundred miles of land lines connecting the interior and east-coast garrisons with the cable stations at Calbayog, Catbalogan, and Tacloban, and in December the signal officer of the department visited the different stations on both the east and west coasts of the island and equipped four construction parties, in command of officers detailed from the line of the Army for the purpose by the brigade commander, with funds and material, including 400 miles of wire and 30 telephones. The parties were to work from Basey south to Balangiga; Calbayog north to Laguan; Oras south along the east coast, and from Borongon north. The Oras and Borongon parties were unable to get any line in operation, the insurgents destroying it as fast as it could be put up. The Calbayog party succeeded in getting a line up to Mauo, 48 miles north. The Basey party constructed a line to Balangiga, 30 miles. Both of these lines passed through swamps and jungles for most of the distance, were cut almost daily, and have been of little benefit. They were finally abandoned until such time as the country should become more settled. \* \* \*

The difficulty on Samar is not in constructing lines, but in maintaining them. The people travel almost entirely by the rivers, which flow in every direction to the sea from the high mountains in the interior. The trails are little more than paths made by animals through dense forests and over precipitous mountain ranges.

The following from Lieutenant Wallace's report is of interest in connection with military operations in Mindanao:

A telegraph line is under construction to connect Cottobato with Davao, via Makar, for which work the Civil Commission has made a special allotment of \$5,000. It has been completed to a point some 70 miles south of Davao and 50 miles east of Cottobato. Construction parties are under the command of competent officers, and the line should be completed during the coming summer. The total distance will be about 350 miles. The route selected by the brigade commander trends southwest from Cottobato, leaving the river at Riena Regente, passing west to Lake Linguasin, and touching Sarangan on Lake Buluan, rounding Mount Matutun, and taking a northeasterly course to Digos on Davao Bay, thence to Davao along the coast. A loop from the foot of Mount Matutun will connect with Makar. This country is either mountainous or extremely swampy, and if the natives in the vicinity ever rise the line will have to be abandoned.

In April it was seen that the natives in the Lake Lanao district were becoming hostile and extremely insolent, and this culminated in an attack on Lieut. William D. Forsyth, Fifteenth Cavalry, and about 20 men, who were engaged in investigating the route for a road and telegraph line from Parang to Lake Lanao. In this engagement 1 man was killed and a number of horses captured. After many attempts to recover the animals and secure the arrest of the offenders an expedition to the lake was determined upon, first under the direction of Gen. Frank D. Baldwin and later commanded in person by Gen. George W. Davis, brigade commander.

As it was shown that active resistance would be offered in the occupation of this region, a large number of troops were ordered to Malabang as a base, and the signal corps was ordered to keep in communication with this force. Lieut. W. G. Cooper, Philippine Scouts, detailed to the signal corps for duty, was sent to Malabang with a considerable amount of material and all the linemen and operators who could be spared. Work was immediately commenced and a trail toward the lake widened for the passage of ammunition wagons and supplies. The signal corps kept up with the engineers and established stations with telegraph operators every 5 miles along the trail.

On the 1st day of May the main body of troops started for the lake, and on May 3 stormed the Moro fort on Lake Lanao, at what is now known as Camp Vicars. The Signal Corps men kept up with the marching troops and opened a station at the front. Lieut. Basil O. Lenoir, Signal Corps, U. S. Army, relieved Lieutenant Cooper on May 29 as field signal officer of this expedition. Immediately after Camp Vicars was established a new permanent road was commenced from Malabang to the lake. This road was closely followed by the telegraph line, and each camp established had a signal station and telegraph operator on duty. After this line was nearly completed to Camp Vicars it was decided to cut out the trees on each side of the road for a distance of 100 feet. This recutting necessitated an entire change of the line. The work is not yet entirely completed, but Camp Vicars, the headquarters of the Lake, has never been out of communication except for short intervals since its occupation by the American troops. In the near future it is possible that this line will be extended to other towns on the lake, and the material is already on the ground for its construction.

Of Filipino labor, with which Lieutenant Wallace has had two years' constant experience, he says:

Natives are employed as laborers and drivers for native transportation on the construction of new lines and as messengers, linemen, janitors, etc., in the maintenance of existing lines. They are paid on construction duty 50 cents, Mexican, per day and rations; as messengers and linemen, from \$15 to \$25 per month and rations, and are scarcely worth even this low rate of wages. On construction work in the interior, where it is desired to employ a number of them at one time, it can only be done by the presidente of the town ordering them to work. As messengers and linemen they are careless and unreliable. This is not the fault of any prejudice against the Americans or of ill treatment, but it is the natural antipathy of the native to any form of steady labor. A native will work hard for a day or two if he is assured of sufficient pay to support him in idleness for the rest of the week. Linemen are not always occupied, therefore these positions are much sought after by natives, as the wages are considerably more than they were accustomed to receive under the Spanish régime, while the cost of living for them is very little higher. Every native aspires to live like a gentleman and without manual labor, therefore they are very anxious to learn telegraphy and to become proficient in clerical work.

He continues:

While stationed at Tacloban, Leyte, with the cooperation of Capt. Henry T. Allen, Sixth Cavalry, U. S. Army, at that time governor of the island, Lieutenant Wallace opened a telegraph school for the instruction of native boys. Each presidente in the province was instructed by the governor to send to Tacloban the most intelligent and best educated young men in his town for this instruction. Ten or twelve of these boys reported and were given six hours' instruction daily by an experienced American telegrapher. They did not learn as readily as American boys, but picked up the mechanical sending and receiving very rapidly. As they progressed they were detailed by roster for duty in the telegraph office as counter boys, waiting on customers, preparing messages for delivery, etc. Only two of these boys had sufficient intelligence to perform even this simple duty. They were exasperatingly slow and nothing seemed to make them understand it was necessary to hurry. This school was broken up after about two months, owing to the transfer to other duties of the officers interested in it.

The Eastern Extension Company used natives in their offices as operators and for clerical work, but their manner of handling telegrams is very different from the American plan, and I doubt very much if any native, in a reasonable time, could be educated to handle the large amount of business handled daily by the American operator. If a telegraph system in the Philippine Islands is to be maintained at its present high standard of efficiency it will be by the employment of white operators and linemen.

Referring to more peaceful themes, the press service inaugurated in accordance with instructions from the Chief Signal Officer of the Army has been continued and expanded, as shown by the following:

A daily bulletin service has been established since December, formerly under the auspices of the Associated Press, and more recently controlled by the office of the adjutant-general of the division. The cost of the service between the United States and Manila is covered by personal subscriptions of officers and civilians throughout the islands, the messages being transmitted over the Signal Corps lines free. These bulletins are practically the only news received at many of the out-of-the-way stations, and consist of several hundred words daily of the most important happenings throughout the world.

#### GENERAL CHARACTER AND SCOPE OF WORK.

The introduction of repeaters and duplexing of land lines and cables has steadily progressed, improving greatly the efficiency and rapidity of the service; indeed, without the most modern improved methods the Signal Corps would have been unable to have transacted the enormous volume of telegraph business that has been filed with it. The appliances are in all cases of the latest modern types. The wet cell has been discarded wherever possible, being replaced by storage batteries. The existing conditions are fairly illustrated by the following photographic views of the electrical generating plant and the power switch board of the Signal Corps at Manila.

The volume of business has increased 107 per cent, as compared with the previous year, but such have been the improved methods that the time of transmission from department headquarters at Cebu to any station in the department is less than an hour, and through business to Manila, where there is only a single conductor cable on trunk line, is handled in slightly over an hour.

The character of the service has been greatly improved by the appointment of an officer as general traffic manager. On this point Major Glassford says:

At the head of the operating department has been placed an officer who brings to the work his experience as a commercial and railroad operator. As most of the operators are recruited from the railroads and commercial lines in the United States, these men efficiently respond to his trained superintendence. The service is all the facilities make possible.

Owing to the scanty postal facilities, all important correspondence, whether civil, commercial, or military, is sent by telegraph over the lines of the Army Signal Corps. On this point Major Glassford says:

Military orders and matters usually sent by letter had been transmitted by telegraph owing to the absence of other certain means of communication; such has been the importance of these communications that the military and civil administrations largely owe their efficiency to them.

Of the field service during the year Major Glassford states that—

The principal field operations during the year in which the Signal Corps participated were in the Fourth Separate Brigade against General Ballarmino, who surrendered to Colonel Wint at Legaspi, and the Third Separate Brigade against General Malvar, who surrendered to General Bell at Lipa. In the latter campaign a second wire was strung from Batangas to Manila and 70 miles of field lines were built, connecting nearly every post in the provinces of Batangas, Laguna, and Tayabas. The Signal Officer is in receipt of a telegram from the commanding general, Third Separate Brigade, thanking officers and men for their work. For gallantry in defending telegraph office against attack of the insurgents of Candelaria, Tayabas Province, the commanding general of the division expressed his thanks to Signal Corps men.

As showing the character of the service rendered by Signal Corps lines, and their indispensability to successful military operations, may be quoted the telegram of Gen. J. Franklin Bell at the end of the campaign which resulted in the establishment of peace conditions throughout the archipelago. General Bell says:

I have now sent the last telegraphic circular I contemplate sending, a fact which affords me quite as much satisfaction and relief as I know it will afford the personnel of your corps serving in connection with this brigade. Mail facilities are so very slow and uncertain in this brigade that had it not been for the exceptionally valuable service rendered me by your corps in connection with my work here that I feel morally certain that I could not have accomplished in six months what has already been accomplished in about six weeks. I wish to extend to you, and through you to every man and officer of your corps who has participated in this labor, my sincere thanks for the service rendered me and their Government in this brigade. I am not insensible to the fact that they have been called upon and taxed in quite an unusual manner, but I think they will also realize that they have been assisting in a hard campaign worked out under very unusual conditions. The rapidity of such success as we have attained depends almost exclusively upon the very exceptional and valuable service the members of your corps have rendered me; at least such rapidity could not possibly have been achieved without their assistance. Please thank each individual for me.

#### MONEY VALUE IN BUSINESS DONE.

Reports in considerable detail have been made of the business transacted by telegraph and telephone in the Philippine Islands during the past fiscal year. If these telegrams had been all transmitted over the lines of the Eastern Extension Telegraph Company, at minimum commercial tariffs in the archipelago, their cost to the Government would have aggregated the large sum of \$3,109,677.22. Augmenting this by \$70,000 for telephone tariffs and \$49,444.66 for commercial tariffs, the grand aggregate value of Signal Corps work is \$3,229,121.88. Regular reports for ten months show that there were sent in that period 799,250 messages on official business, which approximately determines the number of official telegrams for the fiscal year as 933,834. It is estimated that the average length of official telegrams is 33.3 words, this being the length of 459 official and other relayed messages at Cebu in a single day. Probably the real length exceeds this, as at Cebu there have been sent none of the long telegraphic circulars running into thousands of words, which, filed as a single message, was sent simultaneously to many stations.

Assuming the average length of official messages at 33.3 words, and one-half of these messages pass from one island to another, the regular Signal Corps rate would be just \$1 per message. That the rate of 3 cents per word on these messages is extremely low may be realized from the fact that the United States pays 5 cents per word, plus a large subsidy, on telegrams over the commercial cable of the Eastern Extension Company, a distance of 20 miles between Iloilo and Bacolod.

This shows that the tariffs on official messages sent over Signal Corps lines at the very low rates fixed by the Chief Signal Officer of the Army for telegrams in the Philippines has a money value for the year of \$933,834.

In addition, calculating the telephone rates at 10 cents for each message, the telephone tariffs exceed \$70,000, being \$17,000 for the station of Manila alone, and calculated for other stations on the basis of ten messages per day—a very low estimate. This brings up the total tariff values of official messages, by telegraph and telephone, to \$1,033,834. As the receipts for the transmission of commercial messages reached \$49,444.66, the entire tariffs aggregate \$1,083,278.66. These figures are certainly below rather than above the truth.

It may be added that official messages are strictly confined to public business, the commanding general, Division of the Philippines, having long since ordered the discontinuance of the practice of free transmission of private messages for officers of the Army, who, however, have been accorded half rate.

An analysis of Major Glassford's statistics shows that the official telegrams were sent by different governmental departments as follows: Philippine civil government, 0.114 per cent; War Department, 0.856 per cent; Navy Department, 0.017 per cent; and other United States departments, 0.013 per cent. It further appears that the official business of the War Department is rapidly decreasing, while that of the Philippine civil government and of the other United States Government departments are materially increasing. This is shown by the departures of the percentages for May, the last month available, as compared with the averages for the year as follows: War Department decrease, 0.083 per cent; Philippine civil-government increase, 0.054 per cent; Navy Department increase, 0.005 per cent; other United States Government departments increase, 0.024 per cent.

The commercial business systematically increases, as is shown by comparison of the receipts of September, 1901, the first full month after the opening of the system, \$3,677.73, with those of June, 1902, \$4,969.17—an increase of more than one-third. It is safe to assume that hereafter the income from commercial business will be at least \$60,000 per year. As an illustrative instance of the appreciation of the telegraph by the local traders should be stated the fact that the hemp dealers send out to their customers, at the various points, daily quotations of the Manila market.

#### EXPENSES.

In view of the foregoing statements regarding money value of work done by the Signal Corps in the Philippines, it is just to consider the other side of the ledger with a view of determining whether the expenditures for such service are excessive. There have been compiled data showing as far as possible the entire cost of the Signal Corps of the

Army in the Philippines and of the telegraph system, and estimated equitable balances have been struck both with the United States and with the Philippine civil government.

There have been spent during the fiscal year by the United States on telegraph lines in the Philippines \$31,000, almost all of which, \$26,360.11, were for services. In addition, it is estimated that property to the value of \$151,000 has been shipped from the United States.

It is impossible to determine to what extent the Signal Corps should be credited on account of the permanent plant added during the fiscal year. This plant consists of 612 miles of submarine cable installed during the year and now in good working order, and of 1,043 miles of land line built during the year and now in operation. If these were considered the balance would be much more greatly in favor of the Signal Corps. It is impossible, without great labor, to determine how much of the permanent plant was purchased from the appropriations of this fiscal year. The entire plant is estimated to be worth at present \$1,060,110. This value is obtained by fixing a value of \$105 for line, instruments, and battery for each of the 5,108 miles of land telegraph line in operation. Similarly, the 1,326 miles of submarine cable are estimated as \$395 per mile laid and installed.

In view of the above approximate valuations, giving an aggregate of \$1,060,110, it might be fair to assume that a depreciation of 10 per cent per annum for both cable and land lines would be a fair estimate; for land lines the depreciation would be greater than this, but for cables it would be less; making a maintenance cost for material and labor \$106,011. The entire annual cost to the United States of maintaining the telegraph system of the Philippines for the fiscal year ending June 30, 1902, may then be stated as follows:

Pay of officers.....	\$26,700.00
Pay, cost of clothing and rations of men .....	212,449.00
Transportation (estimated) .....	25,000.00
One-half of the expenses of the <i>Burnside</i> (cable ship).....	54,500.00
Local incidental expenses .....	35,687.07
Ten per cent depreciation, as above stated .....	106,011.00
Total .....	460,347.07

In addition to the cost to the United States, the Philippine civil government has expended \$88,619.31, most of which is for payment of native employees.

It is interesting to compare the annual costs of this business to the United States with the annual estimated value of the business if done by a commercial company. It is too often assumed that army work is performed in an extravagant and inefficient manner, as compared with commercial enterprises. The preceding data show, however, that the entire cost of maintenance, including the pay and allowances of all officers and men serving in the Philippines, the cable expenses of the *Burnside*, all material for maintenance and its transportation, the salaries of all civilian employees connected with the work of installation, maintenance and operation, and the depreciation of the plant of the telegraph system during the past year, is less than \$500,000.

As an offset telegraphic business has been transacted which, at the current commercial rates in the Philippines, would have cost the United States and Philippine governments no less than \$3,109,667.22. In addition, not only was telephone business to the value of \$70,000 like-



wise done, but the sum of \$49,444.66 was collected for commercial tariffs and turned into the Philippine treasury. In other words, the Signal Corps of the Army has rendered services in the Philippines whose pecuniary value is more than six times the cost of its total expenses. This has simply been done by overworking officers and men and by underpayment of the men, as elsewhere mentioned.

As will be seen, the United States and the Philippine civil government are getting for approximately one-sixth of what it would pay commercial companies a service which must of necessity be better, as it is rendered by men whose whole loyalty is certainly involved in giving good service to the country.

The proportion of this business done solely for the United States has a tariff value of \$892,846 per annum, calculated under the Signal Corps tariff, or of \$2,976,153 on a commercial basis.

Let us turn now to the Philippine civil government. As many telegraph offices are being maintained only incidentally for military purposes, the civil government has recognized the value of these lines by making appropriation of civil funds for their support and maintenance, pending the transfer of these lines permanently to the civil government. The policy followed by the Chief Signal Officer of the Army has been to separate, as far as possible, the two services, and the process, as stated elsewhere, is now in operation.

There have been appropriated from the civil funds \$97,000 during the fiscal year, of which \$9,000 will be turned into the treasury, leaving an expenditure of \$88,000, of which \$52,167.08 were for services.

There have been turned into the treasury of the Philippine Islands all commercial line receipts, amounting to \$49,444.66. This leaves the actual cost to the insular treasury for the maintenance of certain lines \$38,555.34. The telegrams of the civil government and its agents are transmitted free. For the fiscal year the money value of services thus performed would approximate, at regular tariff rates, the sum of \$103,000, leaving an equitable balance in favor of the Signal Corps of \$64,000. In addition, the civil government has a reversionary interest in a permanent plant valued at \$1,060,110, installed during the past fiscal years, of which it is now beginning to receive results in the shape of transferred lines and instruments, as stated later.

#### TRANSFER OF PHILIPPINE TELEGRAPH LINES.

The negotiations leading to the gradual transfer of the telegraph lines from the control of the Army to that of the civil government in the Philippines have been continued throughout the year. As previously reported, there have been established at various points throughout the archipelago telegraph schools, whereat the Signal Corps has instructed and selected classes of intelligent Filipinos, who were selected by the department of public instruction of the civil government. It is possible that untoward conditions in the archipelago may have interfered with the presentation of the best class of candidates for such instruction. Whether this be so or not, the advances made have not been so rapid as was anticipated.

The question of the transfer of lines has been several times renewed by the Chief Signal Officer of the Army. The Hon. William H. Taft, governor of the Philippine Archipelago, informed the Chief Signal Officer of the Army, in a conference in this city in April, that the con-

dition of affairs was such as to render it, in his opinion, inadvisable to make any such transfer until after the end of the fiscal year 1902; but he promised to give the matter careful attention on his return to Manila. As soon as Governor Taft arrived in the Philippine Islands the matter was taken up by the Chief Signal Officer by letter and by telegram.

The Chief Signal Officer recommended the transfer of all detached and outlying telephone lines at once, to be followed from month to month by telegraph lines on the islands of Masbate, Marinduque, and Bohol; afterwards by such other lines as might be later agreed upon by General Davis, Governor Taft, and the Chief Signal Officer.

The formal transfer of such lines doubtless began in September of this year when, at the request of Governor Taft, First Lieut. Charles S. Wallace, Signal Corps, was detailed to take charge of the work. There will be retained by the Signal Corps for strictly military purposes the entire cable system, with one through connecting land line, so as to keep division, department, and post headquarters in direct communication. The governor of the Philippine Islands, the commanding general Division of the Philippines, and the Chief Signal Officer of the Army all concur in this method. The Army alone has the means of maintaining the cable system, which can be turned over as a whole with far greater advantage than in parts.

#### REDUCTION OF CABLE RATES.

In accordance with the request of Governor William H. Taft, Philippine Islands, the Chief Signal Officer of the Army visited, in October, 1901, the headquarters of the Eastern Telegraph Company, Limited, for the purpose of conference on matters of importance to the civil government.

One object in view was the increasing of the commercial cable facilities of the Philippine Islands so that archipelago, with a population of some 9,000,000 people, should not be dependent upon a single cable which has already been in use for many years—that extending from Manila to Hongkong.

It was thought possible by the Philippine Commission, and also by the Chief Signal Officer of the Army, that cable communication with the rest of the world could be extended by supplementing the cable between Hongkong and Manila by a second cable from Siasi, Sulu Archipelago, to Sandakan, North Borneo, and possibly by a third cable connecting Cape Bojeador, or Aparri, on the north coast of Luzon with the Japan cable systems in Formosa. The conditions at that time, however, proved to be such that the establishment of an alternate commercial route was impracticable.

Very important results followed negotiations looking to the reduction of cable rates between the Philippine Islands, the United States, and other points. These rates were viewed both by the civil government and by the Army as excessive, in view of the enormous volume of business transacted in late years by telegraph to and from the islands. The action was timely, as a readjustment of eastern cable rates was clearly imminent.

Repeated conferences were had with Sir John Pender, chairman of the board of directors of the Eastern Telegraph Company, Sir John Wolfe-Barry, chairman of the board of directors of the Eastern Exten-

sion Australasia and China Telegraph Company, and with Mr. F. E. Hesse, secretary of both companies.

The aspects of the case were thoroughly and carefully considered by the officials of the Eastern and Eastern Extension Telegraph companies, who, it should be said, displayed a broad and liberal spirit toward the United States in connection with these questions. They were approached strictly on the practical side of the question, the Chief Signal Officer of the Army stating that this was a matter solely for them to determine with a view to the interests of their stockholders, as they would probably be affected by the rapidly growing telegraph business of the company in the Philippine Islands.

It was pointed out to them that existing telegraphic conditions were considered to be exceedingly onerous to the American people as well as to the inhabitants of the Philippine Islands. The maintenance of high rates and a continuance of existing conditions imperiled, it was urged, the good will of the Philippine government.

It was not concealed that the government hoped in the near future to see additional cables reaching the archipelago not only from Asiatic points, but also from the Continent of America. Information was given the company of the establishment on the Signal Corps telegraph lines in the Philippine Islands of 60 commercial cable offices. They were advised that the existing system of telegraph lines in the Philippine Islands would be speedily transferred to, and be operated by, the civil government, and that meanwhile there was a readiness on the part of both the civil government and the Signal Corps of the Army to cooperate fully in the interchange of commercial business on terms that should be beneficial to all parties. It was further suggested that if exorbitant rates were continued, the advent of a competitor would naturally turn the current of commercial business very largely to the lines of such competitor.

Finally the Chief Signal Officer of the Army invited attention to the fact that the expensive telegraphic environment of Australia had been materially modified on account of the proposed establishment of a government cable from Vancouver to Australia, by the action of the Eastern Telegraph Company and the Eastern Extension Company, who had a year since reduced by one-half the rates to Australia.

The situation and prospects were thoroughly discussed and the final action of the company was most liberal, the reduction being as follows:

The reduction in telegraphic rates amounts to 70 cents on every word sent to the Philippine Islands from the United States, an average reduction of 30 per cent on the former charges for messages.

The rate from Manila to the United States was made to agree with the rate from this country, but as such rate had been previously complicated by exchange and was originally lower than the outward rate, the saving from Manila is not so great as to Manila.

The reductions from Europe were 36 per cent of the old rate—from 8s. 7d. to 5s. 6d.—practically 74 cents per word. The smallest reductions were those obtained to the Dutch Indies and Cochin China, which varied from 14 per cent to 18 per cent. The reductions were more material to Singapore, 18 cents per word, and to India, 44 cents per word.

Communication with Japan was made much cheaper by a reduction of 24 per cent, while that to the China coast, Shanghai, Fuchau, and Hongkong was reduced from 40 to 47 cents per word, respectively, the rate to Hongkong being made very low, only 16 cents per word.

Data relative to military messages sent from Washington to Manila since November 16, 1901, indicate an annual saving in the War Department alone of \$32,430.25. Data are not available as to War Department messages sent from Manila nor as to messages of the Navy, State, and other departments of the National Government to and from the Philippine Islands, China, Japan, and the Straits Settlements. It is, however, reasonable to assume that the new tariff will make a saving to the United States Government of not less than \$100,000 per year. The commercial and domestic tariffs likewise have benefited greatly by these negotiations, the reduction to the Philippine Islands being 70 cents on every word cabled from this country by private parties.

#### PACIFIC CABLE.

The Chief Signal Officer of the Army has previously expressed his official opinion that the military command by the United States of the Pacific in the future will depend very largely on cable communications under its complete control.

The importance of an alternate route between the Philippine Islands and the Asiatic coast has been strongly emphasized by the interruption to the Manila-Hongkong cable in June, 1901, which fortunately lasted only ten days. It is a matter of grave importance that a second route should be obtained either by an all-American Pacific cable or by connection with Borneo or Japan.

As regards the supplementing of the single cable between the Philippines and the rest of the world by an alternate route to Borneo, by a cable of 100 miles from Siasi, such action is possible only by partnership with the Eastern Extension Telegraph Company, which possesses exclusive landing rights in North Borneo for many years to come.

An alternate route from Cape Aparri to Formosa, which would undoubtedly benefit Japan and the United States, is possible only through favorable action of the Government of Japan, combined with the consent of the Great Northern Telegraph Company, a Danish corporation holding certain exclusive telegraph rights in Japan.

The growing military importance of cable communication with Asia is strongly evidenced by the extension to the China coast of cable systems entirely within the control of certain governments. England and Russia are now the only nations having direct communication over wires under their control. France has taken such action as insures her communications with Tonkin through cooperation with Russia.

Undoubtedly the most extended system will be that initiated by Germany, which will give practically an all-German route. This system, partly constructed and partly in progress, will cross Asiatic Turkey to the head of the Persian Gulf, thence by cable to Sumatra, over the lines in Dutch East Indies, by cables through South Borneo, Celebes to the Ladrone Islands, and finally a branch cable at Palau connecting with the existing German system on the Chinese coast.

Scarcely second in importance is the Pacific cable installed by Great Britain and its colonies, which by the time this report is in print should be in operation between Australasia and British Columbia, via the Fiji group and Fanning Island.

The United States within the past four years has demonstrated in a manner never before seen by the world the importance of electrical communication in war, and it alone of all nations refrains from install-

ing, operating, and maintaining a submarine cable between this country and our Asiatic possessions. Such a cable in war times, while not costing half as much, would be worth half a dozen war ships, as stated by competent naval authorities. Such a cable, operating at greatly reduced tariff rates, would not only pay good interest on the invested capital, but would greatly facilitate the evolution of American trade in the East by affording speedy and economical facilities to citizens of the United States.

The official experiences of the Chief Signal Officer of the Army show unquestionably that telegraph operators and managers give their first allegiance to corporations, and lastly to their country; this, whether they are American, English, French, Spanish, or of other nationality.

Should there be failure in present negotiations, looking to a commercial trans-Pacific cable under such restrictions as will place that cable thoroughly under American control, whether in peace or in war, the Chief Signal Officer believes that action should then be taken for the construction and installation of an all-American cable, which, in the words of the President's message on that subject, "should remain in the power of the American Government, whether in peace or in war."

#### OPERATIONS IN THE UNITED STATES.

It is not to be inferred that the work of the Signal Corps has diminished in past years. Great as are the interests and extent of work in Alaska and the Philippines, they are closely approached by developments in the United States, especially in connection with fire-control communications for seacoast artillery, the electrical installations at posts, and the necessary provisions for maneuvers and field camps.

#### VISUAL SIGNALING IN THE LINE OF THE ARMY.

Under paragraph 1747, Army Regulations, department commanders supplement the operations of the Signal Corps by such instruction in visual military signaling as they deem necessary for the public service. The instruction in the line of the Army contemplates that each independent command (camp, cantonment, or post) should have at least two signal officers, and at least two enlisted men should be able to exchange messages in the army and navy code at short distances by day and night.

Deficiency in instruction in military signaling in the line of the Army has resulted largely from the inability of the Signal Corps to furnish a signal officer for each military department. Of the eight military departments in the United States it has been possible to supply only two, throughout the year, with a signal officer. Both of these officers have lately returned from foreign service, one in impaired health. The six other departments have been served almost entirely by line officers.

Matter of interest relative to the operations of department signal officers follow.

#### DEPARTMENT OF CALIFORNIA.

The duties of the signal officer have been performed by the following officers: Maj. W. A. Glassford, Signal Corps, July 1 to 5, 1901; Capt. A. B. Dyer, Artillery Corps, July 5 to September 27, 1901;

Capt. B. C. Morse, Seventeenth Infantry, September 27 to June 9, 1902; Lieut. Col. James Allen, Signal Corps, June 9 to June 30, 1902.

The routine work of the Department is largely supplemented by the establishment at San Francisco of Signal Corps depots for the instruction and training of recruits, the receipt of invalided men returning from the Philippines, and the purchase, inspection, and shipment of electrical and telegraphic supplies for the Philippines and Alaska.

The Signal Corps has been most fortunate in securing, during the absence of its regular officers, the services of Capt. (now Major) A. B. Dyer, Corps Artillery, and Capt. B. C. Morse, Seventeenth Infantry. These officers, although charged with other important duties, applied themselves to Signal Corps work with an aptitude and zeal that have materially benefited the service and been most creditable to them.

Telegraphic and telephonic communications have been regularly maintained between the department headquarters, Forts Baker, Mason, McDowell, the discharge camp and quarantine on Angel Island, with Alcatraz Island and the General Hospital of Presidio. Over these lines a very large volume of telegraphic business has been handled, the total number of messages being 40,034. All messages, commercial as well as official, having been handled free, the commercial messages being connected almost entirely with the short-service and discharged men from the Philippines. The commercial tariffs, aggregating \$1,465.91, have been transferred to the commercial companies without loss.

The Signal Corps system of wireless telegraphy is operated successfully and continuously between Fort Mason and Alcatraz Island, a very large volume of business being done during the interruption of the cable between Angel and Alcatraz islands.

Instruction has been continued at Fort McDowell throughout the year, there being collected at this point all recruits and transferred men from points west of the Mississippi River. The school has been most efficiently and economically managed, and from it there have been sent 23 instructed men to Alaska and 126 instructed men to the Philippines.

The work of purchasing, inspecting, and forwarding electrical and other supplies to the Philippines has demanded careful personal attention on the part of the signal officer of the Department. All shipments have been made with great promptness and in a manner creditable to the service.

Colonel Allen, but just returned from the Philippines at the end of the fiscal year, has also been charged with special duties connected with the supervision and repair of Alaskan cables.

#### DEPARTMENT OF THE COLORADO.

Capt. D. J. Carr, Signal Corps, being ordered to duties as disbursing officer in Washington of the Signal Corps was relieved March 1 by Maj. Charles A. Varnum, who in turn was relieved on the last day of the fiscal year by Lieut. B. J. Mitchell, Twelfth Infantry.

Only 462 miles of military telegraph lines are operated in this department, the more important being those connected with the great Indian reservations and along the Mexican frontier. These lines connect the general hospital at Fort Bayard with Silver City; Holbrook with Willcox via Forts Apache, Grant, and San Carlos Reservation; Fort Duchesne with Price, Utah; Bisbee with San Bernardino, Ariz.;

Fort Huachuca with Huachuca Station, and Fort Wingate with Wingate Station. There is also placed under the signal officer of the Department of the Colorado for the convenience of administration, in money accounts, the section between Fort Yates and Bismarck, N. Dak.

The extension of railroads, and consequently of commercial telegraph systems, in Arizona will soon make it possible to abandon some of the sections connected with the Indian reservations. It was hoped that the Holbrook-Willcox section, 268 miles, could be abandoned this year, but the judgment of the authorities is adverse, owing to its value in military operations should there be any recurrence of Indian troubles.

The sum of \$891.76, Government tariffs, has been deposited in the United States Treasury, and commercial tariffs to the amount of \$2,123.47 turned over to the commercial companies to which they belong. There were handled during the year 32,703 messages. In view of the possible early abandonment of these lines there have been no general repairs during the past year; in consequence there was no less than one hundred days of interruptions during the year. Steps have been taken to put them in a reasonable state of repair.

#### DEPARTMENT OF THE COLUMBIA.

Capt. Frank Greene, Signal Corps, was relieved of his duties as signal officer of the department on February 11 by Maj. Joseph E. Maxfield, Signal Corps, who remained in charge at the end of the year. Major Maxfield having been incapacitated for duty by serious illness, while on an inspection trip in Alaska, has been unable to render an annual report of the department, and Captain Greene being on duty in the Philippines, no report could be obtained from him. Under these circumstances the Chief Signal Officer of the Army has been compelled to compile data therefor, and has presented the conditions of this department as far as known to him under the head of Operations in Alaska.

#### HEADQUARTERS, DEPARTMENT OF DAKOTA.

Capt. Charles B. Hepburn, Signal Corps, having returned from foreign service in impaired physical condition, was assigned to this department September 30, being able to perform only light duty.

#### DEPARTMENT OF THE EAST.

Capt. Leroy S. Lyon, Artillery Corps, performed in a most creditable manner the duties of signal officer of this department until relieved on November 20, 1901, by Col. H. H. C. Dunwoody, Signal Corps, who has since remained in charge. Much has been done in the way of perfecting intercommunication between the various artillery posts for fire-control purpose. Forts Adams and Wetherill, R. I., Forts Carroll and Armistead, Md., Forts Jackson and St. Philip, La., have thus been connected by cable during the year. There has also been perfected the cable system between the artillery posts of Fort Trumbull, New London, Forts H. G. Wright, Michie, and Terry, N. Y., and Gardners Point, at the east entrance of Long Island Sound. Repairs have been made of the interrupted cables of Fort Hamilton, between Fort Hancock, N. J., and Fort Wadsworth, N. Y., Fort Mott, N. J., and Fort Delaware, Deer Island, Massachusetts, and Long Island Head, Boston Harbor, Massachusetts.

There being no officer of the Signal Corps available for such work, Colonel Dunwoody, in addition to his duties as signal officer, Department of the East, has been charged with the supervision, purchase, and inspection and shipment of large amounts of cable, electrical supplies, and machinery for the Philippines. In this work he has been most efficiently assisted by Mr. Townsend Wolcott, inspector.

## DEPARTMENT OF THE LAKES.

It has been impossible to spare an officer of the Signal Corps for duty in this department. There have been frequent and various changes in the officer nominally charged with the duties, which necessarily have received only formal and incidental attention. No report has been received of the operations within the department.

## DEPARTMENT OF THE MISSOURI.

Despite the request of the general commanding this department, it has been impossible to spare an officer of the Signal Corps for duty therein. Indeed, it was with difficulty that a well-instructed first-class sergeant could be found for duty at headquarters. The signal work connected with the department has been performed by various officers as occasion arose, and in consequence the signal work has received but scant attention.

This condition of affairs is more to be regretted in view of the fact that within the limits of this department are two instruction schools for the line of the Army. No annual report has been made as to the operations of the Signal Corps in the department.

The Signal Corps, however, has established at Fort Riley, where a commercial system has been inaugurated under shadow of authority, a post telephone system covering all the administrative needs of the garrison. The favoring of commercial telephone corporations by governmental assistance has grown up at a number of the posts which, like Fort Riley, were not under the supervision of a Signal Corps officer. The policy of the Secretary of War as understood by the Chief Signal Officer of the Army is contrary to such operations, and whenever brought to the notice of this office they have been promptly discountenanced. Otherwise there would have been liability in their outcome to cause embarrassment to the War Department by establishing unwise precedents.

## DEPARTMENT OF TEXAS.

Capt. C. B. Roberts, Seventh Infantry, has continued in charge of Signal Corps work in the Department of Texas throughout the year. His duties have been performed with the same degree of efficiency and intelligence that characterized his service in previous years.

There are operated in this department about 260 miles of military telegraph lines, of which the most important is the line between Forts Brown, Ringgold, and McIntosh, as it furnishes the only telegraphic communication with the Lower Rio Grande Valley, now growing in importance and prosperity.

The line is not only indispensable to military authorities, but is of great utility to the Federal judiciary authorities, to the State and county officers policing the Mexican frontier. It is exceedingly difficult of repairs, owing to the total lack of modern facilities of transportation. All interruptions have been promptly repaired. Under



Captain Roberts's administration conditions have materially improved, so that the depredations so frequent on this section have been discontinued, none having been reported during the year, the first time since the establishment of the line. The sum of \$1,094.08 collected for Government tariffs has been covered into the United States Treasury as required by law, and the sum of \$506.83 collected on commercial tariffs has been turned over to the commercial companies without loss or abatement.

SIGNAL CORPS POST, FORT MYER, VA.

Maj. Joseph E. Maxfield continued in command of this post until October 2, 1901, when on his being ordered to Alaska, Capt. E. B. Ives remained in charge until March 4, 1902. Maj. R. E. Thompson assumed charge on April 1, 1902.

The primary function of the post is the instruction of not only officers but also recruits and other untrained men of the Signal Corps to a high degree of professional efficiency. The unremitting demands for trained men from Alaska and the Philippines, where nine-tenths of the skilled men have declined to reenlist, has made it impossible to properly train men before they are imperatively demanded for active service. Recruits are worked from eight to ten hours daily in duties of the soldier, foot drills, instructions in Army Regulations, guard duty, in the garrison duties of the soldier, and in practical and theoretical instruction in electricity, telegraphy, telephony, in property and money accountability.

As a rule it requires six months' careful training before the average recruit is fairly prepared for the exacting duty required of Signal Corps men on foreign stations. About one man in three can be sent forth in four months fairly qualified, and about one man in four can never qualify except for strictly subordinate positions.

The situation has been complicated by the fact that the majority of the officers of the Signal Corps while skilled in the most important phases of the work for active operations with an army in the field, are deficient along theoretical lines, and in many cases of important phases of military duty. As rapidly as possible these conditions are to be removed by proper instruction of the officers in question. The current work of instruction, however, suffers greatly from the lack of trained officers as instructors, the exacting duties in Alaska and in the Philippines, and in fire-control work demanding the services of the few highly trained officers in the corps to the exclusion of instruction duty.

To remedy these conditions and assist Major Thompson in his important duties, which, as in the case of many other officers, tax his physical and nervous powers, the Chief Signal Officer has arranged for assistance from sources outside of the post. To this end on September 15 the following order was issued:

In order to bring the instruction of the Signal Corps up to the high standard indicated by the Secretary of War in his scheme for the instruction of the line of the Army, promulgated in General Orders, No. 102, C. S., A. G. O., the Chief Signal Officer of the Army directs, as supplementary to the practical instruction now given to the officers and enlisted men of the Signal Corps, that there shall be established a suitable theoretical course. To this end a series of professional lectures will be inaugurated at the Signal Corps post, Fort Myer, Va., at an early date.

A board consisting of the following officers is appointed to formulate instructions thereon: Maj. R. E. Thompson, Signal Corps; Maj. George P. Scriven, Signal Corps; Capt. Edgar Russel, Signal Corps; Capt. Daniel J. Carr, Signal Corps.

These lectures will be delivered by such officers of the Signal Corps and such civilian specialists as may be announced from time to time. Signal Corps officers to whom this work is intrusted are expected in elucidating the several scientific subjects to keep abreast with latest professional thought and discovery. The subjects to be treated will include the following: (1) Administrative duties, discipline, Army and Signal Corps Regulations. (2) Aeronautics. (3) Applied electricity. (4) Dynamos and storage batteries. (5) Electrical instruments. (6) Electrical wiring. (7) Field glasses, range finders, etc. (8) Fire control communications. (9) Photography. (10) Submarine cables. (11) Telegraph lines, their construction, operation, and maintenance. (12) Telephony. (13) Visual signaling. (14) Wireless telegraphy.

This method will give the officers and men of the Signal Corps the best theoretical instruction attainable, and when the demands of the Philippines and Alaska become less exacting, as it is hoped will be the case the coming year, there is anticipated a marked advance in the efficiency and availability of both the junior officers of the Signal Corps and of the enlisted force.

This line of action is in harmony with the wishes and instructions of the Secretary of War, which look to the conjoining of practical and theoretical instruction in such manner as to make every officer of the Army an efficient and reliable factor in the vicissitudes of war or in connection with multifarious duties in time of peace.

There have been made at the post such electrical installations as are needed for instruction and use. They are to be supplemented as early as possible by suitable appliances for visual signaling, including a suitable signal tower.

There are very badly needed, in order to fit the post for the important work required of it, two double sets of officers' quarters, two double sets of noncommissioned officers' quarters, a flagstaff, and a guardhouse. The urgent necessity for additional quarters for officers and noncommissioned officers can not be more forcibly presented than in the statement that there are on duty at the post three married and four unmarried officers for whom there are but three sets of quarters. This is doubtless the only post in the United States that has not a single set of quarters for noncommissioned officers. It is hoped that these entirely inadequate facilities may be remedied the coming year.

The limits of the post should be slightly extended, as under the present conditions the contiguity of the quarters of one of the cavalry posts to the signal officers of the Signal Corps post borders on military impropriety, to speak mildly. On this point the inspector, in his report of May 10, 1902, remarks:

The line separating the cavalry and Signal Corps posts passes through the back porches of quarters now occupied by officers of the Signal Corps, thereby depriving them of back yards. This annoying defect can be readily overcome by shifting the dividing line so as to make it coincide with road passing within 30 to 50 yards to the rear of the quarters. A small frame house, occupied by a noncommissioned officer of the cavalry, is located immediately in the rear of one set of quarters. It should be removed or turned over to the Signal Corps for disposition.

The inspector also comments on the necessity of improving the reservation so as to furnish a parade ground.

As regards improvements, Major Thompson says:

It goes without saying that the important post, in the immediate vicinity of Washington and upon the direct route of the Arlington Cemetery, should be kept in presentable condition, in fact should be as far as possible a model. The amount of work required, however, to effect needed improvements is too great to be performed by the labor of troops without interference with proper duties. The whole question of improvements, including grading, draining, the preparation of a parade, and the arrangement and sodding of slopes, should be undertaken by a competent engineer and the grounds put in condition to accord with those of the post and cemetery beyond.

In the interest of economy, the Signal Corps storehouse in Washington City was abandoned and the stores transferred to the Signal Corps post, Fort Myer, Va., on August 16, 1901. The centralization of these supplies, while beneficial to the service in general, has taxed greatly the facilities and personnel of the post. There was received and shipped during the year more than 8,000 packages, weighing more than 600 tons.

The relations of the two independent posts at Fort Myer—the cavalry post and the Signal Corps post—have been most harmonious, a spirit of cooperation and kindly feeling obtaining creditable both to Colonel Dimmick, lately commanding the cavalry post, and Major Thompson, commanding the Signal Corps post. It should be added that the present commanding officer, Col. E. L. Huggins, displays a most cordial spirit of courtesy and cooperation, which will undoubtedly conduce to the benefit of the service.

The importance of the Signal Corps post as a school of instruction is shown by the fact that 296 enlisted men have been instructed during the year, of whom 240 were recruits.

Despite the unfavorable conditions of saloons and other unsavory places immediately adjacent to the men's quarters, the discipline has been good, there being during the year but three trials by general court-martial and forty-two cases requiring action of summary court. As most of these men were recruits, this small percentage of misdemeanors speaks for the general high character and standing of the men enlisted, in which direction unusual care has been taken. No man is enlisted in the United States without the authority of the Chief Signal Officer, and in addition to the usual requirements recruits are required to furnish special recommendations as to character, aptitude, and mental attainments.

#### TELEGRAPH AND CIPHER BUREAU OF THE WHITE HOUSE.

The telegraph and cipher bureau of the White House to place the Commander in Chief of the Army and Navy in quick and direct communication with the forces on land and sea, and with our diplomatic representatives abroad, has remained under the immediate supervision of Capt. Benjamin F. Montgomery, Signal Corps.

Twenty-five telegraph wires, several of which are duplexed, and fifteen telephone cables connect the telegraph and cipher bureau with the departmental lines of the Government and with commercial companies of the country.

#### FIRE-CONTROL SYSTEM FOR SEACOAST ARTILLERY.

As stated in my last annual report, the reorganization of the Artillery Corps, and the designation of Col. Wallace S. Randolph as Chief of Artillery, have produced important results in fire-control operations. The utmost harmony and thorough cooperation has obtained throughout the year between this office, the Chief of Artillery, the Chief of Engineers, and the Chief of Ordnance.

From the beginning it has been recognized that the Corps of Artillery is a dominant factor in the operation of our seacoast defenses, and that any system of fire control must be such as to commend itself to the far greater majority of the officers of the Artillery Corps as a thoroughly reliable system, capable of satisfactory operation by the enlisted men of the Artillery Corps. The Chief Signal Officer

also announced his opinion that no iron-clad system would ever prove satisfactory, but that it must be flexible and capable of modification according to the varying physical environments of the different fortifications.

In announcing that the Signal Corps was not charged with problems of designs for artillery instruments, the Chief Signal Officer of the Army informed the Chief of Artillery that he was willing to take up the problem of electrical installation for the fire-control system of any post in such manner as would seem to the Chief of Artillery most promising in practical results. This is to be done either on plans and specifications drawn by the artillery, or indeed any other branch of the service, or to work out the problem independently on being advised as to the ends desired. In the former case the Signal Corps could not, of course, be held responsible for the efficient working of any system devised by any other corps, only being bound to deliver instruments of first-class workmanship and material, as might be required by the sample instrument or the specifications filed.

The Chief of Artillery and, indeed, most of the officers of the Artillery Corps charged with important fire-control work took broad views of the situation. Almost invariably they have simply enunciated to the Signal Corps the kind and character of work to be done by the instruments, and left the solution of the electrical problem to the Signal Corps. This method, it is believed, has produced results more satisfactory and speedy than could have been otherwise obtained.

Unfortunately, the small appropriation for fire-control purposes for the fiscal year (\$35,000) rendered it impossible to do any considerable work in the past year. Not only were funds lacking for the purchase of material for installation, but the clerical force of the Signal Office was inadequate to do the additional work.

The appropriations were, however, spent in accordance with the requests of the Chief of Artillery, whose wishes as regards the order in which installations shall be made at different posts have always been complied with.

While the Chief Signal Officer of the Army in considering fire-control matters has consistently sought the advice of the expert electricians among the officers of the Signal Corps, yet the burden of the work has fallen upon Capt. Edgar Russel, assistant in charge of the electrical division of this office.

Bringing to the Signal Corps the ripe experiences of seven years as an officer of artillery, during which time his practical knowledge was richly supplemented by stores of knowledge in electricity and chemistry, Captain Russel had in the Signal Corps three years' experience in the Philippines, where he was able to apply his theoretical knowledge of electricity to novel and important operations in the field.

In devising suitable electrical apparatus for the artillery, Capt. Samuel Reber, Signal Corps, now lieutenant-colonel and military secretary, Maj. Richard E. Thompson, Maj. George P. Scriven, Capt. E. B. Ives, Signal Corps, and Maj. G. N. Whistler, Capt. H. C. Davis, Capt. Leroy S. Lyon, Artillery Corps, have contributed materially in suggestions and experiments.

It has fallen, however, to Captain Russel to formulate specifications, make the official tests, and prepare the instructions for the use of the various instruments and material, of which the most important are the armored cables, master clocks, service telephones, and telautographs.

Through the exertions of the officers above named the Chief Signal

Officer of the Army was able to fix upon the material, instruments, and systems which it is believed would successfully solve the problems of fire-control communications as far as the Signal Corps of the Army was concerned.

As far as is known there is no army in the world that has fully and successfully solved the problem of reliable and instant intercommunication between the men at the gun, the battery commander, and the fire-control officer. The scheme as put forward has been tested in many of its details at a single artillery post—Fort Wadsworth—by a board of officers, Majors Story and Whistler, of the Corps of Artillery, and Captain Reber, Signal Corps, to which the Signal Corps owes much in the way of wise suggestions and helpful criticism.

It was, however, a matter of grave uncertainty as to how such a system would work when applied to extensive posts and widely separated garrisons. Indeed, there were queries as to whether such scheme could be depended upon at all, and again whether its complexity was not too marked for successful operation by the enlisted men of the Corps of Artillery. The Chief Signal Officer of the Army had doubts regarding the possibility of any complex system being entirely satisfactory, although full aware of and having full confidence in the intelligence and resourcefulness of the American soldier.

The tests at the Army and Navy maneuvers in Long Island Sound during the past month have proved, however, that the Signal Corps system works, even under the adverse conditions that then obtained.

From various factories came stores of material and instruments which had been made and constructed under high pressure, and which were thrown into Narragansett and New London districts at the last moment; indeed, so late that the final fire-control cable was only delivered eighteen hours prior to, and installed six hours before the beginning of the period of hostilities. Telephones, batteries, master clocks and telautographs all reached the districts during the last week before hostilities, and in some cases could not be installed until the day on which hostilities began. Considering that the component parts of the system were thus, as it were, thrown together for test under conditions assimilating those of actual hostilities, it can not but be considered most creditable to both the manufacturers of the country who completed the instruments and material, to the Corps of Artillery which suggested, and also to the Signal Corps officers who planned and ordered.

That there should have been occasional interruptions and minor criticisms was beyond question, especially when one considers that with very rare exceptions the enlisted men, whether of the Signal Corps or of the Artillery Corps, were entirely unfamiliar with the system or the instruments.

While naturally the whole system reverted to the Corps of Artillery the moment it was successfully installed and tested, yet the operation was supervised by Signal Corps men and employees, whose technical knowledge enabled them to supply promptly all needed information or aid.

It must be acknowledged, however, that this test does not prove the efficiency of the fire-control system in the hands of untrained or ignorant men. Indeed, almost without exception the defects and interruptions complained of were traced to failures on the part of the enlisted men to comply with the simplest and plainest instructions.

As illustrations may be quoted the exhaustion of batteries caused by making a constant connection in order to avoid forgetfulness as to the use of switches; another was the placing of foreign matter in the orifice of the telephone transmitter, thus impairing the audibility of speech. This question as to whether there should not be available in every artillery district a Signal Corps officer and men to supervise and care for these valuable instruments is viewed as most important by prominent officers of artillery, and as certain by the Chief Signal Officer of the Army.

The electrical installation of the coast defenses of the United States will cost eventually in the neighborhood of \$1,000,000, and in time its annual maintenance must cost at the very least \$50,000, figuring the deterioration of the electrical plant at 10 per cent. Many of the costly instruments, such as telautographs, master clocks, special telephones, switches, and batteries, are certain to deteriorate very rapidly unless properly cared for. The proper supervision of these expensive and elaborate electrical plants will prevent what otherwise will be an enormous waste in the years to come. At present the Signal Corps of the Army has no part in the supervision or inspection of these installations, which become part of the artillery plant as soon as installed and turned over in good order.

The conditions are particularly favorable to the application of the detailed system which now is an integral principle in the administration of the Army. It is unquestioned that there should be a signal officer in each artillery district, and at least one Signal Corps man to every battery.

These signal officers should be obtained by detail from the Corps of Artillery, and as an incitement to excellent service and professional attainments the position thus created in the Signal Corps should be filled by detail from the next lower grade in the Army. A second lieutenant of artillery while thus serving with the lowest grade in the Signal Corps should receive the rank and pay of a first lieutenant of the Signal Corps, and whenever vacancies as captain occur, similar positions should be made for the officers of artillery thus detailed.

The artillery officers would bring to their duties a knowledge of the artillery service absolutely needful for work of the highest character, and when they returned to the artillery four years later they would have a store of electrical knowledge regarding not only fire-control communication, but other installations that would very greatly increase their value to the Corps of Artillery. It is elsewhere recommended that the Signal Corps be increased by nineteen officers, of whom at least sixteen should come from the Corps of Artillery.

It is also most important that the electrical equipment of a post should be an entity, and its component parts designed and adjusted to make one united whole. From the standpoint of economy, simplicity, and efficiency it is unquestioned that these conditions would best be subserved by imposing on a single bureau of the War Department all these duties.

It may be added that the assignment of these duties is the outcome of the recommendations of the Board of Ordnance and Fortification. It is most probable that the Army and Navy maneuvers will develop conditions that will engage the attention of this board, and among them a reassignment of some of the minor duties will doubtless have consideration.

While under the law and regulations the Signal Corps is charged with electrical communication for fire-control purposes and electrical installations at posts, there have been modifications and limitations which the Chief Signal Officer of the Army has not thought proper to question, nor does he now do so. Inevitably the duties of various departments cross one another at certain points, but as far as the Signal Corps is concerned there is every desire to avoid clashing and to seek only the interests of the Army and of the country.

It might be borne in mind that the varied duties in the past have made the Signal Corps of the Army unusually well skilled in electrical work. The tendency of the times is to specialization, and past experiences demonstrate the difficulty of bringing together all-round men competent for the many separate phases of practical electrical work necessary for the Army.

Apart from its work in telegraphy, telephony, storage batteries, generating plants, portable searchlights, etc., the Signal Corps of the Army has added that of electric lighting initiated in the Army at Montauk Point, in the Philippines, and lately at Fort Riley. Its success in extending its operations to interior lines of communication is acknowledged. The field of electricity as applied to military purposes is not only important and varied, but the task of keeping pace with modern invention, and applying it to military purposes, involves in no ordinary degree inventive qualities and aptitudes as well as application.

There is no question that the officers of the Artillery Corps, of the Corps of Engineers, or of the Ordnance Department could perform these varied duties as well as officers of the Signal Corps, but to do so necessarily entails a vast amount of study and training outside of the ordinary duties pursued by those officers. It seems to be a question of coordinating the work where it can be most speedily brought to a degree of perfection in keeping with the high standard of the American Army.

This report elsewhere demonstrates the economy and efficiency of the Signal Corps in its electrical work in the Philippines.

It is believed that a slight extension of its enlisted force, and the addition of a few officers would enable the Signal Corps to perform the entire electrical work in connection with the coast defenses more economically than could be done in any other way.

It is a question between doing this work economically by enlisted men and lieutenants or by a host of high-priced civilians. Despite its unusually broad field of electrical work, the Signal Corps of the Army has now in its employ only two civilians drawing a larger salary than \$1,800 per year and but two drawing between \$1,500 and \$1,800. Careful training as well as practical work have brought many of the first-class sergeants of the Signal Corps to a high electrical standard considered from the standpoint of practicality.

During the maneuvers the electrical sergeants engaged on duty with power plants and searchlights were unavailable for the supervision of fire-control communications in both the artillery districts of Narragansett and New London, and could at no single post either maintain or care for the fire-control work.

Artillery officers in some cases incline to the opinion that assistance from the Signal Corps will always be necessary. The late maneuvers

in Long Island Sound, while displaying clearly the importance of fire-control communications, also emphasized the necessity of an increased Signal Corps force if this corps is to be responsible for telegraph, telephone, fire control, wireless telegraphy, ballooning, and visual signal work. In any event it is of the utmost importance to provide for the future a properly trained and available enlisted force. The men of the Signal Corps have never been instructed in this work, which hitherto has been considered a function of the enlisted men of the Corps of Artillery.

Doubtless these questions will receive consideration in the early future as their importance demands, especially as in an official communication the Chief of Artillery, who both from technical training and official position speaks with authority, says:

Attention is invited to the fact that a battery of guns without a range finder or without an adequate means of fire control loses 75 per cent of its efficiency.

The equipment of any attacking squadron is certain to be perfect as regards both its internal and external systems of communication. While the internal system is one of vital importance for fire-control purposes, it should be pointed out that the British navy considers the external system of such importance that according to a late naval publication some of the battle ships have a signal staff exceeding 30 in number.

#### WIRELESS TELEGRAPHY.

Early in 1899 the Signal Corps of the Army devised a system of wireless telegraphy which was the first one ever successfully operated at a distance in the United States, it transmitting messages satisfactorily between Fire Island and Fire Island light, a distance of 10 miles.

This system, improved in details and installed more than two years since in San Francisco Harbor, has worked satisfactorily the entire time, except for a few hours needful to replace broken parts. This is believed to be the longest record of satisfactory working between any stations, and it has been done not by highly paid experts but by the enlisted men of the Signal Corps, whose skill and intelligence are worthy of commendation.

It was hoped that circumstances would permit the establishment of wireless stations at suitable points in the Philippines. While the existing conditions are in many respects ideal, the constant pressure for every available man in other directions made experimental installations of this kind impracticable. The Signal Officer of that division considers that such installation would, in the present condition of the invention, be expensive and inefficient, in which opinion the Chief Signal Officer of the Army coincides.

The pressure of duties has rendered any extended investigations impossible for Signal Corps officers even in the United States. Working out of hours, however, Captain Russel reports as follows:

During the months of February and March experiments with the buzzer as a transmitting instrument for earth-current telephony and telegraphy was made. The apparatus used and results obtained are embodied in the report appended. (Not published.) It was found that communication could be had between stations separated  $1\frac{1}{2}$  miles, using 200 or 300 feet of wire at each station with ends connected to earth.



In connection with the Army and Navy maneuvers it was deemed advisable to test all available systems, namely, the De Forest, the Fessenden, and the Marconi. On this subject Captain Russel says:

The report already made to the Chief Signal Officer of the Army concerning the operation of wireless telegraphy during the September maneuvers indicates quite clearly the advances that have been made in this line.

The De Forest system gave very good results, and it is believed this system of transmission, utilizing an alternating current with a step-up transformer in oil insulation, is theoretically the best as well as the one giving the most promising practical results. The alternating-current method does away at once with that most troublesome and annoying part of wireless apparatus—the interrupter. Of course, it introduces the troublesome feature of a generator and motive power for driving the alternating dynamos, but a small motor dynamo driven by the same battery power necessary to run the ordinary induction coils used in wireless telegraphy will be fully as compact and simple as the coil and interrupter. The transformer is a compact ironclad affair not easily damaged, as the ordinary induction coils are. The spark given by the instruments used at New London, Conn., has all the qualities which wireless methods have demonstrated best, being intensely white, clear cut, and having a vicious tearing sound that indicates a large amount of energy being delivered across the spark gap.

Unfortunate conditions interfered with the work of the experts of the Fessenden and Marconi systems.

Steps have been taken looking to the utilization of wireless telegraphy on special sections of the Alaskan telegraph system.

On June 17, 1902, Capt. Frank Greene made a detailed report, in which he said:

After close observations during the past two years I am convinced that it is impracticable to maintain cables in the shallow waters of Norton Sound, which connect St. Michaels with Unalaklik, Golovin Bay, and Nome.

Captain Greene reported that cables are liable to be broken short off at the rise and fall of the ice-foot by ice movements of the general pack during the spring tides and from heavy ice, which is said to have been seen grounded in seven fathoms of water.

Under these conditions it seemed advisable to establish, if possible, wireless systems between Fort Davis (Nome City) and Fort St. Michael, and also to cover the Tanana marshes by a similar stretch between Fort Gibbon and the vicinity of Bates Rapids.

As a result of proposals, awards were made to and contracts with Queen & Co. for the installation and successful operation of the Fessenden wireless system between Fort Davis (Nome City) and Fort St. Michael, and with the Marconi Wireless Telegraph Company of America for the installation and operation of a wireless system between Fort Gibbon and Bates Rapids, with the installation of an intermediate station if necessary. Under the terms of the contract no payments were to be made until these lines had operated ten consecutive days.

As both Queen & Co. and the Marconi Company have applied for extensions, it is evident that neither contract will be completed on October 1. As regards extensions, the Chief Signal Officer of the Army recognizes the fact that wireless telegraphy is in a somewhat experimental stage, and proposes to be as lenient with defaulting contractors as the public interests may permit.

In reporting on some desultory experiments Captain Russel says:

Some very interesting experiments have been made in the past few months in the testing room, Lemon Building, regarding modifications of certain special types of coherers.

The most interesting forms developed by these experiments are, first, a simple tripod of three sewing needles resting on a polished plate of steel or platinum. This

form is connected with a resistance wire through which the current from a single dry cell runs, thus permitting an exact adjustment of the voltage, through the coherer and relay in circuit with it, which gives a certainty and delicacy of action that is surprising.

A sounder connected in local circuit or relay mounted on the same base as needle coherer will respond instantly to single taps, or groups thereof, without any other decohering device, thus permitting use of the Myer code as a means of telegraphy.

The second form of coherer is of the Castelli variety, consisting of a small glass tube, in which there is a bit of iron at the center. Two small carbon rods are pushed in, one at each end, almost touching the iron, being separated therefrom by two small globules of mercury previously put in. This coherer is itself decohering, permitting the use of a telephone receiver as the instrument for reading the message.

This simple device can be made up in a few minutes, one cell of dry battery and an ordinary telephone receiver constituting the complete receiving apparatus for a wireless station. A wire elevated by a kite or a small balloon furnishes the necessary antenna, and a receiving station in the field can be quickly extemporized and as quickly closed up and taken elsewhere.

It would appear that this method can be developed into a practical one for communicating with a cavalry or infantry column on the march. The transmitting apparatus could be made up in a portable form for emergency work somewhat as follows: Large dry cells, or Edison battery in steel cells, could furnish the necessary current. The coils or transformer could be made sectional and assembled at the transmitting station. None of the parts need weigh over 50 pounds, permitting their carriage by pack animal, or even by the men in an emergency.

#### FIELD GLASSES, TELESCOPES, AND PORTABLE RANGE FINDERS.

The Chief Signal Officer of the Army has continued his investigation of these very interesting and important subjects during the past year. Field glasses of various types have been issued to different batteries of field artillery for test and report. These reports indicate that no one type of field glasses can give satisfaction under all circumstances. Varying conditions of temperature, humidity, and clearness of atmosphere make it certain that different types for the differing conditions will have to be adopted. For example, reports received from San Antonio, Tex., indicate that the high-power prismatic glasses are there much preferred, whereas the artillerymen in northern stations, where the light is less powerful and the atmosphere less clear, give their unqualified approval to the plain field glasses of large diameter and of rather low magnifying power.

It is, of course, evident that no glass can suit everybody, as different persons have eyes of very different capabilities. While the most important quality of a glass is definition—that is, the sharpness of the image seen through it—yet the qualities of power, light, and field are but little less important. No single field glass can furnish a maximum result as to either of these four qualities, and in consequence all glasses must be compromises. In addition, whether a glass is used by a mounted man with free hand, by one on foot, or in a glass holder very markedly different powers are used with advantage. The best that can be done is to select certain standard glasses, leaving the individual free to utilize special advantages from a glass suited exactly to his eyes, position, locality, and special need.

The Chief Signal Officer of the Army is now engaged in collecting a large number of types of glasses for experiment, with a view of limiting the very large number of types which have been purchased from time to time upon the recommendations of officers who have desired them. Upward of 30 types of glasses are now issued, and it is desired, if possible, to limit this number to not exceed four types.

The same question concerning telescopes has arisen, and it is believed that, between the large station telescope of 3 inches aperture and the small telescope issued for our field batteries, not to exceed two intermediate types will be necessary.

Portable range finders of the field-glass type have been issued to a limited extent, and the Chief Signal Officer is at present in correspondence with makers with the view of obtaining several types of these for experiment in the field.

#### INTERNATIONAL CABLE REGULATIONS.

The Chief Signal Officer invites attention to the fact that the subject of the rights, privileges, and immunities of submarine cable property in time of war, brought to notice during the Spanish-American war, should properly be a matter of consideration for an international cable conference. Such a conference for the protection of submarine cables was held at Paris in 1884, and its proceedings, transmitted to Congress by the President on January 9, 1889, were subscribed to by the United States and by twenty-five other principal nations of the world.

Article XV of this conference, however, specially states that "the stipulations of this convention shall in nowise affect the liberty of belligerents," which leave cables in time of war without adequate international regulations to meet the complicated conditions.

In view of the present enormous extension of submarine cables, aggregating in the British Empire alone the value of \$30,000,000, such a conference could properly consider other international cable matters. A standard international cable code should replace numberless codes now in use. A single code constructed on scientific lines would materially increase the working capacity and efficiency of submarine cables. It should avoid words liable to telegraphic error, whether transmitted by the European or American alphabet, and those which badly transcribed lead to errors in reading. By selecting suitable code words the speed of code messages could be increased from 20 to 30 per cent with equal or improved legibility.

#### INTERNATIONAL TELEGRAPH CONVENTIONS.

The next international conference is to be held in London in 1903, and it is most urgently recommended that the United States adhere to the International Telegraph Union, and that steps be taken by Congress to authorize the War Department to join and be represented thereat.

While under the regulations any state may adhere to the convention on request, and may renounce its adhesion, yet nations not belonging, such as the United States, can only submit views through a proposal, which views must be seconded by one of the contracting states, conditions incompatible with the dignity and standing of this nation.

As compared with the contracting states, the United States is now at a distinct disadvantage in the use of cables and land lines which pertain to the union. In time of war or in serious exigencies the United States has to yield in priority to the official messages of agents of all contracting states, as under the regulations telegrams of contracting states take precedence.

The International Telegraph Union furnishes the contracting states gratuitously all information relative to international telegraphy, such

as interruptions, restorations, etc., and the United States has been obliged for years past to obtain such valuable information secondhand and as a favor, if at all. The expense of the maintenance of the International Bureau is borne by the different states, and would probably not exceed a few hundred dollars per year for the United States. The amount could be paid from the telegraphic expense of the Signal Corps if authority be given, or the expenses could be met, as in other countries, by the additional charge of 1 cent on each message over the United States lines, as was regularly done in Cuba, Porto Rico, and the Philippines prior to 1898.

Prior to the Spanish-American war Porto Rico and the Philippines participated in the advantages of this union, and there seems to be good reason why they should continue to adhere, especially in view of the fact that foreign cables reaching these islands conform to the regulations of the International Telegraph Union. It should be borne in mind that the civil government of the Philippines is now collecting, under the regulations of the International Telegraph Union, a transit tax which will more than defray the total expenses of the United States connected with the union.

Complications have already arisen with regard to the conditions under which wireless telegraphy should be operated between different countries, and extensive correspondence has been had with regard to international conventions for the purpose of formulating international regulations. It seems most advisable that international regulations should be established in the infancy of this invention, before serious or complex conditions arise. At such convention the Signal Corps of the Army, which by law is charged under the Secretary of War with the construction, repair, and operation of military telegraph lines and cables, of collecting and transmitting information for the Army, by telegraph or otherwise, should be represented.

#### SIGNAL CORPS OF THE NATIONAL GUARD.

The importance of communications has been very generally recognized in the organized militia of the United States. There exist Signal Corps organizations with commissioned officers and enlisted men in the States of California, Colorado, Connecticut, Illinois, Indiana, Louisiana, Maine, Massachusetts, New Jersey, New York, Ohio, Texas, and Utah, and the Territory of New Mexico, and the District of Columbia. Detachments under noncommissioned officers have also been organized in Iowa, Maryland, New Hampshire, and Rhode Island, and in the Territory of Arizona.

The relations of the Signal Corps of the Army with the signal organizations of the National Guard of these States have continued harmoniously throughout the year. It has been a source of regret that the law does not permit this office to recognize requisitions from the governors of the various States for equipments needed by the signal organizations. It is hoped that legislation will soon permit the fullest cooperation of the regular establishment and the volunteer organizations. The latter give liberally of their time and effort, which should be recognized by suitable issues of signal equipment. There have, however, been distributed code cards, pamphlets of instructions, etc., whenever these could possibly be spared.

## REORGANIZATION OF THE SIGNAL CORPS.

The corps now consists of 1 brigadier-general, 1 colonel, 1 lieutenant-colonel, 4 majors, 14 captains, and 14 first lieutenants, as shown by the following roster:

*Signal Corps, United States Army.*

No.	Name and rank.	Station, duties, and foreign service with Signal Corps, excluding leaves of absence.	At present station since—
	<i>Chief Signal Officer, brigadier-general.</i>		
1	ADOLPHUS W. GREELY ..... <i>Colonel.</i>	Washington, D. C.; foreign inspection service, 9 months.	
1	Henry H. C. Dunwoody..... <i>Lieutenant-colonel.</i>	Signal officer, Department of the East, Governors Island, New York; foreign service, 2 years 2 months.	Nov. 20, 1901.
1	James Allen..... <i>Majors.</i>	Signal officer, Department of California, San Francisco, Cal.; foreign service, 2 years 9 months.	June 7, 1902.
1	Richard E. Thompson.....	Commanding Signal Corps post, Fort Myer, Va.; foreign service, 1 year 7 months.	Apr. 1, 1902.
2	George P. Scriven.....	Office Chief Signal Officer, Washington, D. C.; foreign service, 2 years 6 months.	June 27, 1901.
3	William A. Glassford.....	Chief Signal Officer, Division of the Philippines, Manila, P. I.; foreign service, 3 years 5 months.	Feb. 17, 1902.
4	Joseph E. Maxfield..... <i>Captains.</i>	Office Chief Signal Officer, Washington, D. C.; foreign service, 1 year 7 months.	Oct. 1, 1902.
1	Frank Greene.....	On duty in the Philippines, Manila, P. I.; foreign service, 2 years 4 months.	
2	Samuel Reber.....	Military secretary to the Lieutenant-General Commanding the Army, Washington, D. C.; foreign service, 1 year.	June 1, 1901.
3	George O. Squier.....	On duty in the Philippines, Manila, P. I.; foreign service, 1 year 8 months.	Dec. 6, 1900.
4	Edgar Russel.....	Office of the Chief Signal Officer, Washington, D. C.; foreign service, 2 years 10 months.	May 31, 1901.
5	Edward B. Ives.....	On duty at the Signal Corps post, Fort Myer, Va.; foreign service, 7 months; as volunteer 1 year 6 months.	Dec. 6, 1901.
6	Eugene O. Fechet.....	On duty in the Philippines, Manila, P. I.; foreign service, 1 year.	Oct. 17, 1901.
7	Charles McK. Saltzman.....	On duty in the Philippines, Manila, P. I.; foreign service, 8 months.	Mar. 21, 1902.
8	Benjamin F. Montgomery.....	On duty at the White House, Washington, D. C.; foreign service, none.	Apr. 24, 1901.
9	Daniel J. Carr.....	Disbursing officer, Signal Corps, Washington, D. C.; foreign service as volunteer, 2 years 4 months.	Mar. 15, 1902.
10	Carl F. Hartmann.....	On duty in the Philippines, Manila, P. I.; foreign service, 1 year 8 months; as volunteer, 1 year 5 months.	May 26, 1901.
11	George C. Burnell.....	On duty in Alaska, Fort Egbert (Eagle City), Alaska; foreign service, 1 year 8 months; as a volunteer, 1 year 1 month.	June 24, 1901.
12	Leonard D. Wildman.....	On duty in the Philippines, Manila, P. I.; under orders to proceed to Signal Corps post, Fort Myer, Va.; foreign service, 1 year 8 months; as a volunteer, 1 year 10 months.	May 9, 1901.
13	Charles B. Hepburn.....	Signal officer, Department of Dakota, St. Paul, Minn.; foreign service, 5 months; as a volunteer, 1 year 1 month.	Sept. 30, 1901.
14	Otto A. Nesmith..... <i>First Lieutenants.</i>	On duty at the Signal Corps post, Fort Myer, Va.; foreign service, 1 year.	July 18, 1902.
1	Walter L. Clarke.....	Office of Chief Signal Officer, Washington, D. C.; foreign service, 1 year 4 months; as a volunteer, 1 year 9 months.	June 16, 1902.
2	Basil O. Lenoir.....	On leave of absence for 1 month; foreign service, 1 year 7 months; as a volunteer, 2 years 6 months.	
3	Charles B. Rogan, jr.....	Under treatment at United States General Hospital, Fort Bayard, N. Mex.; foreign service, 11 months; as a volunteer, 1 year 9 months.	Mar. 19, 1902.
4	William Mitchell.....	On duty in Alaska, Fort Egbert, Alaska; foreign service, 1 year 1 month; as a volunteer, 2 years.	Nov. 10, 1901.

*Signal Corps, United States Army—Continued.*

No.	Name and rank.	Station, duties, and foreign service with Signal Corps, excluding leaves of absence.	At present station since—
<i>First lieutenants—Continued.</i>			
5	Richard O. Rickard .....	On duty at the Signal Corps post, Fort Myer, Va.; foreign service, 1 year 3 months; as a volunteer, 1 year 9 months.	May 15, 1902.
6	Frank E. Lyman, jr. ....	On duty in the Philippines, Manila, P. I.; foreign service, 1 year 8 months; as a volunteer, 2 years.	May 27, 1901.
7	Henry W. Stamford .....	On duty at the Signal Corps post, Fort Myer, Va.; foreign service, 8 months; as a volunteer, 2 years;	Feb. 10, 1902.
8	Charles S. Wallace.....	On duty in the Philippines, Manila, P. I.; foreign service, 1 year 8 months; as a volunteer, 1 year 11 months.	May 16, 1901.
9	George S. Gibbs.....	On duty in Alaska, Fort Gibbon, Alaska; foreign service, 1 year 4 months; as a volunteer, 2 years 7 months.	July 6, 1901.
10	Mack K. Cunningham.....	On duty in the Philippines, Manila, P. I.; foreign service, 3 months; as a volunteer, 2 years 2 months.	July 29, 1902.
11	Alfred T. Clifton .....	On duty at the Signal Corps Post, Fort Myer, Va.; foreign service, 8 months; as a volunteer, 2 years 6 months.	Feb. 24, 1902.
12	Charles DeF. Chandler. ♀	On duty in the Philippines, Manila, P. I.; foreign service, 1 year 1 month; as a volunteer, 3 months.	Sept. 26, 1901.
13	Henry S. Hathaway .....	On sick leave for 2 months; foreign service, 1 year 6 months; as a volunteer, 8 months.	
14	Otto B. Grimm.....	On duty in the Philippines, Manila, P. I.; foreign service, 1 year 6 months; as a volunteer, 8 months.	June 30, 1902.

The Chief Signal Officer of the Army in his last annual report was of the opinion that the prospective reduction in duties in the Philippines and Cuba would render the commissioned personnel of the corps sufficient. Increased demands resulting from the enormous development of fire-control work, and the practical completion of the Alaskan system of telegraph lines show the fallacy of such an opinion.

Attention is called to the fact that the Signal Corps has been most illiberally dealt with as regards its field officers, such officers being now but 17 per cent of the Signal Corps as against 20 to 51 per cent in other corps or departments. The proposed changes will still leave the Signal Corps with the lowest per cent of field officers, 20 or 1 to 5.

The depleted condition of the available Signal Corps, both officers and men, was strikingly evidenced by the Army and Navy maneuvers on Long Island Sound and at the inland camp now in operation at Fort Riley. In order to perform the duties at all, it was necessary to bring together on Long Island Sound every available man and officer east of the Rocky Mountains, involving not only large expenditures for transportation, but expenditure of money for hire of civilians to replace the Signal men thus detached. Every officer was relieved from duty in the office of the Chief Signal Officer, the care of the office devolving on the commanding officer, Signal Corps post, Fort Myer. Even under these conditions, excluding the Chief Signal Officer, there were only five Signal Corps officers available for duty in the entire period, and these for eighteen hours daily—too great a strain save in cases of the gravest emergency.

The physical record of officers of the Signal Corps has been extraordinary, but the effects of continued overwork, particularly in the tropical regions, have lately materialized. On October 1 practically one-quarter of the Signal Corps is physically disabled. Three officers are thoroughly disabled and can not perform full duty for a long time. Five others, invalided from foreign service, are fit only for light duty.

In the Philippines one officer is in the hospital at Manila, while another is going in and out; both should be relieved, but there is no one to replace them. While it is true that human life is cheap, it would seem to be economical to have a sufficient number of officers to enable duties to be performed until the retiring age at 64, rather than by filling up the retired list with young officers. This seems inevitable in the case of Signal Corps officers unless their number is augmented.

The cause and effect are evident from the following data:

	Regular.	Sick.
Average leave granted per officer for the fiscal year ending June 30—	<i>Days.</i>	<i>Days.</i>
1900 .....	6	None.
1901 .....	4	None.
1902 .....	13	6

Most of the so-called regular leaves were in reality sick leaves, as in the case of Majors Thompson, Scriven, and Maxfield, Captains Russel, Ives, and Carr, and First Lieutenant Lenoir. There have been only four cases in three years when a month's leave has been granted to officers in robust health.

It is therefore recommended that the commissioned force of the Signal Corps of the Army be increased by the addition of 1 colonel, 2 lieutenant-colonels, 1 major, 8 captains, and 8 first lieutenants. The vacancies thus caused in the lower grades should be filled by detail from the line of the Army, in accord with the principles now in force. These details should be very largely from the Corps of Artillery, in view of the vital importance of an efficient and reliable fire-control service for the coast defenses of the United States. In order to stimulate application it is recommended that detailed line officers below the grade of captain receive, when detailed for Signal Corps duty, the rank and pay of the next higher grade. The increase of one or two hundred dollars annually will scarcely more than meet the additional expenditures arising from such details, while the temporary increased rank will be a reward and incentive to lieutenants thus serving.

It is hoped that the discrimination made against the Signal Corps in debarring its officers from the broadening influences and developing advantages to be gained by detail be remedied by legislation. The law should be amended so as to require that Signal Corps officers below the grade of major serve one year in five in the line of the Army. The Chief Signal Officer believes that such legislation would increase the value of the services of Signal Corps officers.

The enlisted force now consists of 810, as follows: One hundred and thirty first-class sergeants, of whom 50 are for service in Alaska and the Philippines; 120 sergeants; 150 corporals; 250 first-class privates; 150 privates; 10 cooks.

The addition of 50 first-class sergeants for service in Alaska and the Philippines, authorized by the act of Congress approved June 30, 1902, is gradually remedying the unfortunate situation forecast in the last annual report. The act approved February 2, 1901, affected disastrously the enlisted force, as it necessitated the reduction in rank and pay of 148 men of the Signal Corps who had served in China and

the Philippines, of whom many had been commended for gallant and efficient services. Prior to June 1, 1902, out of 254 men discharged in the Philippines only 22 reenlisted—1 out of 12. Of the 55 men discharged from July to September, inclusive, no less than 14 reenlisted, or 1 in 4.

It is believed that this addition of 100 first-class privates and 50 privates would meet the requirements of the future, which would make the enlisted force hereafter consist of 130 first-class sergeants, 120 sergeants, 150 corporals, 250 first-class privates, 150 privates, 10 cooks.

The enlisted force should be organized in companies with the same standing as is accorded the engineer companies. For administrative purposes the present Signal Corps is thus organized, but this organization should have warrant of law. The pride of some few soldiers centers in their arm of service, but for ninety and nine it is in their company, troop, or battery.

OFFICE OF THE CHIEF SIGNAL OFFICER.

Notwithstanding the adoption by the Chief Signal Officer of the most approved modern methods in conducting the affairs of his office, the allotted clerical force is entirely inadequate for handling with dispatch and efficiency the large amount of work devolving upon the corps, which is this year greatly augmented by work incidental to the installation, operation, and maintenance of electrical communications at the various artillery posts in the United States. The increase of the Signal Corps from a force of 10 officers and 50 men to 35 officers and 810 men, and of the annual appropriations from about \$18,000 to \$550,000, if followed by a like increase in the civilian force, would require over four times the number of employees at present engaged or estimated for.

The increase in the number of official papers entered and made of permanent record in the administration division alone amounts to over 300 per cent as compared with the previous year.

At times extra hours and Sunday work have been the rule instead of an exception, and the cheerfulness with which Mr. George A. Warren, chief clerk, and other employees have responded to these calls is most commendable. Few clerks have been able to avail themselves of the entire amount of leave to which they are entitled under the law, while absence on account of sickness has averaged for the entire office less than 2 per cent of a clerk's time.

The following clerical force, an increase of two over the present number, is absolutely necessary: One chief clerk at \$2,000, two clerks of class 4, two clerks of class 3, two clerks of class 2, five clerks of class 1, four clerks at \$1,000, four clerks at \$900, two messengers at \$840, two assistant messengers at \$720, one laborer at \$660, and one draftsman at \$1,400.

The enormous increase in the volume of business and in the technical work devolved by late legislation regarding the Signal Corps has made it necessary to reorganize the central office. This coordination has brought current methods of conducting public business into harmony, and, indeed, has increased the amount of work possible for each clerk. Five divisions were organized—administrative, disbursing, electrical, examining, and telegraph divisions.



## ADMINISTRATIVE DIVISION.

The administrative division has charge of the routine work of the Signal Office; the receipt and distribution of the mail; general office correspondence; the care and preservation of the office files, and all matters affecting the commissioned, enlisted, and civilian force of the Signal Corps.

To this division is assigned the principal assistant of the Chief Signal Officer. This position was filled by Maj. Richard E. Thompson, Signal Corps, until April 1, 1902, when, on his transfer to the command of the Signal Corps post, Fort Myer, Va., he was relieved by Maj. George P. Scriven, Signal Corps. The long and distinguished service abroad of these officers, where both had practical experience in the field in the Philippines, and the latter in China, has made their services most valuable.

## DISBURSING DIVISION.

This division is charged with the preparation of estimates for appropriations by Congress; the keeping of accounts of, making requisitions upon, and arranging for transfers to officers from such appropriations; the procuring of quotations, samples, issuing of advertisements; abstracting bids; making awards; placing orders; arranging for inspection and shipment of supplies; the giving of notice to consignees; the invoicing and proper accounting of such supplies; the payment of accounts; the collecting of bills, and all other duties pertaining to disbursements.

The duties of disbursing officer were performed by Capt. Eugene O. Fechet, Signal Corps, from July 1 to August 9, 1901; Maj. George P. Scriven, Signal Corps, from August 10 to March 31, 1902, and by Capt. D. J. Carr, Signal Corps, from April 1, 1902, to the end of the fiscal year. The duties of disbursing officer have been performed most efficiently and promptly.

Captain Carr's report shows that in the regular inspection of his accounts no errors have been found during the year and no disallowances have been made by the Auditor for the War Department. These facts show the high character of the work done in this division and the care and intelligence displayed by Captain Carr and his predecessor, Major Scriven.

In urging a much-needed increase in clerical force Captain Carr says:

Attention is invited to the fact that the appropriation for the installation and maintenance of electrical communication at coast artillery defenses for the ensuing fiscal year is increased seven-fold over that of the year just closed, i. e., from \$35,000 to \$259,200. By reason of the technical character of all of this equipment and the fact that the greater part of it will be new, additional correspondence and other increased clerical work will devolve upon this division. On account of the accuracy required in the performance of all clerical duties in this division, skilled clerks of considerable experience are absolutely essential. I therefore recommend that one additional competent stenographer and typewriter be assigned to the office of the disbursing officer.

Steps are being taken to devise a plan by which the property accountability of the disbursing officer may be simplified and thus obviate the duplication of invoicing and making returns for property purchased and placed in the possession of an issuing officer. If this can be accomplished under the present regulations it is believed the one additional clerk recommended above will enable the disbursing officer to handle the duties of his office promptly; but if no change is made from the present method two additional stenographers and typewriters will be required.

form is connected with a resistance wire through which the current from a single dry cell runs, thus permitting an exact adjustment of the voltage, through the coherer and relay in circuit with it, which gives a certainty and delicacy of action that is surprising.

A sounder connected in local circuit or relay mounted on the same base as needle coherer will respond instantly to single taps, or groups thereof, without any other decohering device, thus permitting use of the Myer code as a means of telegraphy.

The second form of coherer is of the Castelli variety, consisting of a small glass tube, in which there is a bit of iron at the center. Two small carbon rods are pushed in, one at each end, almost touching the iron, being separated therefrom by two small globules of mercury previously put in. This coherer is itself decohering, permitting the use of a telephone receiver as the instrument for reading the message.

This simple device can be made up in a few minutes, one cell of dry battery and an ordinary telephone receiver constituting the complete receiving apparatus for a wireless station. A wire elevated by a kite or a small balloon furnishes the necessary antenna, and a receiving station in the field can be quickly extemporized and as quickly closed up and taken elsewhere.

It would appear that this method can be developed into a practical one for communicating with a cavalry or infantry column on the march. The transmitting apparatus could be made up in a portable form for emergency work somewhat as follows: Large dry cells, or Edison battery in steel cells, could furnish the necessary current. The coils or transformer could be made sectional and assembled at the transmitting station. None of the parts need weigh over 50 pounds, permitting their carriage by pack animal, or even by the men in an emergency.

#### FIELD GLASSES, TELESCOPES, AND PORTABLE RANGE FINDERS.

The Chief Signal Officer of the Army has continued his investigation of these very interesting and important subjects during the past year. Field glasses of various types have been issued to different batteries of field artillery for test and report. These reports indicate that no one type of field glasses can give satisfaction under all circumstances. Varying conditions of temperature, humidity, and clearness of atmosphere make it certain that different types for the differing conditions will have to be adopted. For example, reports received from San Antonio, Tex., indicate that the high-power prismatic glasses are there much preferred, whereas the artillerymen in northern stations, where the light is less powerful and the atmosphere less clear, give their unqualified approval to the plain field glasses of large diameter and of rather low magnifying power.

It is, of course, evident that no glass can suit everybody, as different persons have eyes of very different capabilities. While the most important quality of a glass is definition—that is, the sharpness of the image seen through it—yet the qualities of power, light, and field are but little less important. No single field glass can furnish a maximum result as to either of these four qualities, and in consequence all glasses must be compromises. In addition, whether a glass is used by a mounted man with free hand, by one on foot, or in a glass holder very markedly different powers are used with advantage. The best that can be done is to select certain standard glasses, leaving the individual free to utilize special advantages from a glass suited exactly to his eyes, position, locality, and special need.

The Chief Signal Officer of the Army is now engaged in collecting a large number of types of glasses for experiment, with a view of limiting the very large number of types which have been purchased from time to time upon the recommendations of officers who have desired them. Upward of 30 types of glasses are now issued, and it is desired, if possible, to limit this number to not exceed four types.



The financial statement of Captain Carr for the fiscal year ending June 30, 1902, is as follows:

*Financial statement of the disbursing officer, Signal Corps, United States Army, Washington, D. C., July 1, 1901, to June 30, 1902.*

Title of appropriation.	Disbursements.	Turned back into the Treasury.	Bank balance July 1, 1902.	Cash in Treasury due from appropriation July 1, 1902.	Total.
Signal Service of the Army, 1900 .....	\$31.12				\$31.12
Signal Service of the Army, 1901 .....	44,064.70	\$10,290.98		\$83,719.16	138,074.84
Signal Service of the Army, 1902 .....	194,917.37		\$3,478.05	19.88	198,415.30
Emergency fund, act March 3, 1899: For construction, operation, and maintenance of military telegraph and cable lines .....	2,393.53	398.22		640.58	3,432.33
Signal Service of the Army, 1902: Electrical lines, instruments, apparatus, and materials connected with the use of coast artillery .....	15,395.30		19,604.70		35,000.00
For cable from Goshen Point, Connecticut, to Gardiners Island, New York .....	15,077.50		1,218.50		16,296.00
Military telegraph and cable lines, Alaska .....	113,237.39		5,628.45	173,000.00	291,865.84
Ordnance and fortification .....	4,634.99		2,668.50		7,303.49
Ordnance and fortification (Barrancas) .....			9,181.00		9,181.00
Total .....	398,751.90	10,689.20	41,779.20	257,379.62	699,599.92

## ELECTRICAL DIVISION.

The tremendous development of electricity has materially modified many military methods of long standing. Two years since the Signal Corps had not a dollar for the purchase of an electrical equipment absolutely necessary for coast fortifications. The coming year it has an appropriation of \$259,000. This has necessitated the organization of a new division, for which there are neither officers nor clerks to spare.

This division is charged with the electrical work of the Signal Corps; the selection of special and general apparatus and devices; of executive functions relative to electrical matters and fire control, and requisitions for electrical material and supplies, except such as pertain to the telegraph division.

This division since its organization has been in charge of Capt. Edgar Russel, Signal Corps, an officer of extensive field service and of brilliant attainments, from which the Signal Corps has profited.

The evolution of electricity as applied to military operations, particularly as a means of communication, is of very recent growth, and without doubt owes its most important advances to the officers of the Army of the United States. In addition to electrical appliances for use of the troops in the field, there devolves on the Signal Corps the charge of fire-control communications, a field of constantly widening extent of the greatest importance to the country in general and to the Corps of Artillery in particular.

Without the electrical appliances lately devised and applied to the system of fire control on the north Atlantic coast, the efficiency of the coast fortifications, constructed and installed at a cost of many tens of millions of dollars, would be very materially curtailed. Indeed, a prominent officer of the Artillery Corps, fully familiar with coast

defenses, has stated that the elimination of electrical appliances would impair the efficiency of the defenses 75 per cent. While this may seem to unduly enlarge the importance of electricity in warfare, yet there is no doubt in the mind of the Chief Signal Officer of the Army that the value of the guns of large caliber, on which the safety of the coasts of the United States depends in case of warfare, is fully doubled by the application of electricity to range finders, telautographs, and other apparatus now utilized in fire control work.

Attention is invited to the fact that this new phase of Signal Corps work demands increased clerical and technical force for its proper execution. While the Chief Signal Officer of the Army has felt authorized to employ expert engineers, draftsmen, and electricians by the appropriation for this work, yet he has not thought it within the scope of the law to defray therefrom the expenses of clerical force.

In addition to his routine work, Captain Russel has devoted much time and energy in devising new electrical instruments and modifying old ones to the advantage of the service.

The entire instrumental equipment of the Signal Corps has been taken up anew, and an almost complete equipment of new instruments has been designed.

Purchase has been made of many types of the best instruments for test under the auspices of the board of electrical devices, which was appointed by the Chief Signal Officer of the Army to act in an advisory way upon many questions coming up for consideration on Signal Corps equipment. Incidentally all questions of award on bids have been referred to this board, and recommendations on all kinds of apparatus, electrical and otherwise, have been made by it.

This board has consisted of the various Signal Corps officers available at Fort Myer, Va., and Washington, D. C., associate with Captain Russel. The professional attainments of Lieut. Col. Samuel Reber, military secretary, have been utilized a number of times in regard to special questions, such as telephones, cables, wireless telegraphy, etc., he being invited to sit with the board.

In all this work Captain Russel has necessarily played the most important part. The following new instruments have been devised during the year: Service telephone, field telephone, service buzzer, Russel cut-in telephone, combination telegraph and buzzer table set, and cavalry buzzer. This last-mentioned instrument promises to be especially valuable during rapid field operations. The voltaplex and Ghegan repeater have been thoroughly tested. In fire-control apparatus the artillery type of telautograph, the time-interval clock, and the anemometer have been perfected and tested. The ohmmeter, Fisher cable testing set No. 2, and Pignolet's voltammeter, and the Edison Leland cell have been modified to meet special needs of the Signal Corps work. A Signal Corps type of armored cable has been devised for installation where multiple cables are required.

Of special devices for the fire-control service of the Corps of Artillery Captain Russel says:

The design of the artillery type of telautograph has been about completed by the Gray National Telautograph Company, and several of these instruments were used in the recent Army and Navy maneuvers, where they worked very well.

This instrument was originally selected by the Chief Signal Officer as being a very promising one for fire-control work, and it has been greatly improved, due to the suggestions of artillery officers, especially Maj. G. N. Whistler, at Fort Wadsworth, N. Y.

The time-interval clock, which has been selected by the Chief Signal Officer of the



CAVALRY BUZZER, UNITED STATES SIGNAL CORPS, 1902.



Army, in accordance with the general requirements stated by the Board of Ordnance and Fortifications in its report, has been tested during the maneuvers in the New London and Narragansett Bay artillery districts and proved to be very satisfactory. This clock is electrically wound and controls the bells in all places required. It can, if desired, also control a series of secondary clocks, giving accurate time at any place required.

The anemometer, which has hitherto been a source of great expense and vexation, has been simplified by doing away with the automatic indicator, substituting therefor a compact stop watch, operated by hand, on which the velocities of wind are directly indicated by pressing the stop watch at successive strokes of a simple bell in circuit with the anemometer.

The multiple cable required in fire-control installation has heretofore been of the rubber insulated type with lead sheathing. This was satisfactory where conduits were provided, but in many cases it was not practicable to have conduits. Accordingly a new type of cable has been devised, which has an armor of steel wires and jute serving outside the lead. This gives it great strength and freedom from damage to such an extent that experience with it leads to the belief that it may be safely considered as a substitute for conduit work besides giving greater flexibility to the cable system.

Of Signal Corps Manuals required by existing General Orders, No. 102, Captain Russel says:

The first of these is "Notes on laying, repairing, operating, and testing submarine cables," with a supplemental chapter by Lieut. Col. Samuel Reber, on "Factory testing," which is now in the hands of the Public Printer. The preparation of data on the general subjects of the telegraph, batteries, testing instruments, and methods is about completed and will soon be ready for publication. The preparation of these manuals has necessarily been confined to hours outside of office work, as the routine business of the office has been exceedingly heavy.

The following original work noted by Captain Russel is of interest and importance:

Three modifications of commercial types of these instruments for Signal Corps use have been made in the electrical division:

The ohmmeter, a modification of the Wheatstone bridge, a very convenient instrument for measuring resistances.

The Fisher cable-testing set No. 2, with the additional coils suggested for Signal Corps use.

The voltammeter, made by L. M. Pignolet, New York, with the resistance of its ammeter coils so proportioned as to make it easily available for measuring internal resistances of batteries.

A special apparatus for use in connection with the cables is an electrical device for rapid and accurate vulcanizing of cable joints. This apparatus was used on the cable ship *Burnside*, and was devised in the electrical division. The hinged metal boxes containing resistances utilize the 110-volt current. The resistances are so proportioned as to get the requisite vulcanizing temperature in a very short time.

Experiments referred to elsewhere under the head of "Wireless telegraphy" have been made by Captain Russel, one line being in the direction of using the buzzer as a transmitting instrument for earth currents.

#### TESTING AND INSPECTION.

The large quantities of submarine cable and of modern electrical instruments which the Signal Corps has purchased, early impressed the Chief Signal Officer of the Army with the importance of protecting the interests of the United States in connection therewith. Efforts have been unremitting to suitably equip with standard instruments the Signal Corps officers and inspectors, officials charged with the duties of inspection and purchase.

This policy has produced important results, and in more than one instance has raised the standard of American workmanship and manufacture.



Captain Russel has not only continued the excellent methods devised by his predecessors, Lieut. Col. James Allen, Maj. Joseph E. Maxfield, Cpts. Samuel Reber and George O. Squier, all officers of the Signal Corps, but has further extended and improved the system.

Recognizing that there should be standard instruments for the rigid testing of modern electrical instruments, both in the interests of the manufacturers and of the United States, Captain Russel has installed a testing room suitably fitted with this special electrical apparatus.

Although the accommodations available for this purpose are inadequate and ill-adapted to such work, yet the practical results from extended tests carried out by Captain Russel have not only proved valuable in their scientific character, but have served as a basis for manufacture in a number of important telephonic and telegraphic instruments, the tests being far more complete and exact than usually given by the manufacturers themselves.

In the two small rooms used for this purpose the Chief Signal Officer has provided an Anthony pattern Wheatstone bridge, a standard conductivity bridge for wire testing, a laboratory standard voltmeter, a portable voltmeter, a thin scale ammeter, a milli-ammeter and an alternating voltmeter with multiplier, three D'Arsonval galvanometers of various degrees of sensitiveness with Ayrton shunt, a standard subdivided microfarad condenser, a complete set of discharge, short circuit and reversing keys, a Fisher portable cable-testing set, and numerous smaller instruments for carrying out the investigations. Under this policy, which has proved so fruitful in scientific suggestions and of such far-reaching utility in providing the Signal Corps with additional electrical apparatus, it now has an equipment of a wider range and completeness than that possessed by any army in the world.

The Chief Signal Officer of the Army has pleasure in acknowledging the cheerful cooperation of Mr. Otto H. Tittmann, the Superintendent of the Coast and Geodetic Survey, in furnishing on a number of occasions valuable data and a set of excellent maps for use in connection with the work of the Signal Corps in the seacoast fortifications.

The director of the Bureau of Standards, Mr. S. T. Stratton, has courteously extended all facilities to the Signal Corps for standardizing the Wheatstone bridges, involving an amount of labor in his Bureau which is little appreciated by one unfamiliar with the painstaking and exact work required.

It is believed that the public interests would be subserved by adding to the administration building at the Signal Corps post, Fort Myer, a suitable testing room, where the standards of the Signal Corps could be properly assembled, thus rendering their utilization to the utmost possible extent.

#### EXAMINING DIVISION.

This division has charge of all matters relating to the auditing of money and property accounts of persons responsible to the Government for money or property pertaining to the Signal Corps of the Army. All requisitions for material or supplies are centered in this division for final administrative action, and all subsequent communications, memoranda, reports, etc., relating to said requisitions are filed in this division with the wrapper of the original requisition.

The exigencies of the service at various times placed Maj. W. A. Glassford, Capt. E. Russell, and First Lieut. Walter L. Clarke, Sig-

nal Corps, in charge of this division. The supervision of the work has fallen to Mr. Clarence F. Cobb, an accountant of recognized ability.

It is very gratifying to report that no officer of the Signal Corps is in arrears with his money accounts, nor has there been any necessity for calling for any delayed reports during the fiscal year. There have been no disallowances of disbursements in the case of any officer, and but very few suspensions for informalities of a trivial character. There has, of course, been delay in the receipt of money returns from Alaska, owing to the lack of mail facilities, but all these accounts appear to have been made within the period allowed by law.

All money accounts of volunteer officers in connection with the war with Spain have been rendered and passed.

Especial attention has been given to the adjustment of property returns connected with the late war and the Philippine insurrection. Unremitting efforts have practically closed up the property accounts of volunteer officers who, of course, are now out of service. At the beginning of the year there were 137 unsettled property returns, which number, by diligent correspondence, has been reduced to 71. All the remaining accounts are in the process of adjustment, the cause of delay usually assigned by officers is being separated from their official papers. In the case of officers seemingly negligent the policy of writing the officer directly is not followed, recourse being had to the mediation of the Secretary of War. The stoppage of pay is resorted to only in extreme cases.

The records of the office have been so systematically arranged that the certificates of nonindebtedness in favor of resigned, discharged, and deceased officers are furnished the Auditor for the War Department and the post paymaster on the day of inquiry.

An extension of the card system to the record of telephones, field glasses, telescopes, telephotos, and indeed to all important property, or instruments bearing numbers, has proved of marked utility and is being extended as rapidly as possible.

The telegraph accounts of commercial companies of telegraph services rendered the Signal Corps have been promptly audited and forwarded.

Such improvements have been made in business methods regarding requisitions as to facilitate the tracing of property and fixing responsibility, a matter of previous great difficulty, in shipments made to Alaska, China, the Philippines, and other remote stations.

#### TELEGRAPH DIVISION.

The work of this division includes all matters relating to the operation, maintenance, and repair of United States military telegraph, telephone, and cable lines.

For the greater part of the year this division was under the charge of Capt. Edgar Russel, Signal Corps, who was relieved on April 30, 1902, by First Lieut. Walter L. Clarke, Signal Corps.

Under the Secretary of War the Chief Signal Officer of the Army is directly charged by law with the construction, repair, and operation of military telegraph lines and cables, but for convenience of administration the several sections of telegraph lines are controlled by department signal officers; therefore the treatment of these lines has been considered in connection with the various military departments.

A few isolated cases of unauthorized and unjustifiable interference with military telegraph lines on the part of subordinate and local commanders have occurred, which in all cases have been satisfactorily adjusted by department or division commanders.

In order, however, to diminish the chances of disablement of telegraph lines in future, especially at remote stations, and owing to the large number of officers lately appointed and consequently unfamiliar with orders and decisions of long standing, the Chief Signal Officer of the Army issued to the officers of the Signal Corps the following order outlining the law and regulations and line of action. As will be noted, the order looks to fostering a spirit of harmony, cooperation, and obedience:

ORDERS, )  
No. 18. }

WAR DEPARTMENT, SIGNAL OFFICE,  
*Washington, September 16, 1902.*

\* \* \* \* \*

13. The attention of the Chief Signal Officer of the Army having been called to various instances in which commanding officers of posts have interfered arbitrarily with the duties of Signal Corps men serving as operators at their posts, in some cases disabling the telegraph lines, the following information is given for the benefit of signal officers as to the law and regulations in the matter.

The second section of the act of Congress, approved October 1, 1890, reads:

"The Chief Signal Officer of the Army shall have charge, under the direction of the Secretary of War, of \* \* \* the construction, repair, and operation of all military telegraph lines." (26 Stat. L., 653.)

In construing this law it has been decided that (U. S. Military Laws, ed. 1901, p. 463)—

"The act of October 1, 1890 (26 Stat. L., 653, par. 1227), which places the Chief Signal Officer in charge of construction, repair, and operation of military telegraph lines, repealed the act of August 7, 1882 (22 Stat. L., 319), which vested the supervision of the construction and operation of military and telegraph lines in department commanders."

Attention is called to General Orders, No. 1, A. G. O., January 20, 1879, in which the Secretary of War states:

"In all instances in which the United States telegraph lines are by order of the Secretary of War placed in charge of acting signal officers, who are thus made responsible for the construction, maintenance, and operation of the same, commanding officers and others will see that the especial duties of such officers are not interfered with, and will, upon application, render whatever proper assistance may be in their power.

"The lines form parts of one connected system of telegraphy extending throughout the United States. They serve military, commercial, naval, and other distant interests. The disabling of or interference with any part may cause complications not possible to be contemplated in the immediate vicinity. Official and military messages have precedence on all Government lines."

It is recognized by the Chief Signal Officer of the Army that in grave military emergencies local commanding officers can and should take control of military telegraph lines and the entire personnel within the limits of their command, and signal officers in such cases should cheerfully and loyally obey any instructions then received.

It is further to be understood that signal officers shall faithfully execute any and all instructions issued by department or division commanders bearing on their duties connected with military telegraph lines.

Seeming invasions of the duties and powers of the officers of the Signal Corps when engaged in carrying out general instructions issued under the authority of law by the Chief Signal Officer of the Army should always be accepted until remedied by the local commander, whose attention, however, should be called to the situation as viewed by the signal officer. Such statements should be made in writing when practicable, and if made verbally should later be reduced to writing and duly presented at the earliest practicable moment.

The Signal Corps is a servant of the Army, and signal officers should never forget the often repeated injunctions of the Chief Signal Officer of the Army that it is their

function to find out what to do and not how not to do it. Courtesy, consideration and restraint are needed qualities of signal officers, and if properly applied to practical conditions will rarely fail of satisfactory solving any annoying situations.

Lines of operation regarding post-telephone service, post-telegraph lines, and other electrical installations have been coordinated in the interests of economy and efficiency. Post-telegraph lines are installed and instruments issued for practice only on the special recommendation of department commanders and at such posts as their importance, garrison, and location promise satisfactory results from such facilities.

Post-telephone systems are being installed as necessity or recommendations therefor are received. The policy of the Chief Signal Officer looks to the connection by a telephone system of all points whereby the administrative duties of posts, especially those covering extensive ground, can be more promptly and efficiently performed.

Wherever the extent of the system demands, central telephone exchanges are established. While such exchanges should be under the charge of the Signal Corps men, yet the pressing demands upon the service preclude such details save in special and most important cases. There should, however, be a sufficient number of Signal Corps men available for this work, as otherwise the instruments rapidly deteriorate and the service is inefficient and unsatisfactory.

The distinction made by regulations regarding telephone service is not generally understood. The Quartermaster's Department is charged directly with "Exchange service," which means the connecting of military posts by commercial lines with existing exchanges in adjoining towns or cities. The many complications and embarrassments that have arisen in this connection point to the advisability of the Signal Corps being charged with expenditures of this character in future appropriation acts. This recommendation is not made in the interest of the Signal Corps, but of the line of the Army, which naturally reverts for such facilities to the Chief Signal Officer of the Army, who by law is charged with duties of this character.

It should be understood that under no consideration will commercial companies permit the connection of post-telephone service with commercial systems, which causes another source of annoyance and embarrassment. For instance, in many posts there are from two to six commercial telephones which are paid for separately, much to the advantage of the commercial companies, when a single 'phone would answer the purpose if it could be connected with a Signal Corps post exchange.

Under existing conditions the Quartermaster's Department is unable to exercise any supervision after making the contract for the exchange service. Despite every effort on the part of the Quartermaster-General and his subordinates, the exchange service is frequently a source of official complaint through the signal officer of the post to this office, which entails much unnecessary correspondence, and, as a rule, without corresponding benefits.

The policy has been continued of improving by the adoption of late commercial devices and with the invention of service instruments the efficiency of the working of the telegraph and telephone lines. There is being installed an experimental system on the Fort Duchesne-Price line looking to the simultaneous operation of this line telegraphically

and telephonically, with devices and methods which are mentioned under the head of "Electrical division."

#### ESTIMATES AND EXPENDITURES.

The estimates for the fiscal year ending June 30, 1904, aggregate \$549,000. This amount is divided as follows: For the Signal Service of the Army, \$160,000; for the installation and maintenance of artillery fire-control service, \$389,000.

The estimate for the Signal Service of the Army is an increase of \$20,000 over the appropriation for the fiscal year ending June 30, 1903. This increase is necessitated as follows: Extra expenses for the maintenance and repair of 1,500 miles of military telegraph and cable lines in Alaska, estimated at \$15,000. The remaining \$5,000 is the minimum extra expense involved in army maneuvers and practice camps, which is the declared policy of the War Department for the benefit of the militia of the country.

The increase of \$129,800 in the estimates for artillery fire-control work is made in accordance with the statement of the Chief of Artillery that this additional sum will be needful for the proper installation and maintenance of the artillery fire-control service during the fiscal year ending June 30, 1904. The basis of this estimate is 389 completed emplacements at \$1,000 each.

The omission of the continuance of the special appropriation for Alaskan telegraph lines is owing to the belief that the system authorized will be completed prior to July 1, 1903.

The expenditures during the year have amounted to \$389,751.90, and for the three preceding years, as shown by reports of the disbursing officer, have been as follows:

Year ending June 30, 1901 .....	\$914, 132. 00
Year ending June 30, 1900 .....	307, 114. 09
Year ending June 30, 1899 .....	621, 457. 69

As has been stated in various annual reports, the appropriations have often of necessity been supplemented in exigencies by allotments from the war emergency fund and from funds of the Ordnance and Fortification Board.

Despite every effort to reduce expenses in the Philippine Islands the estimates can not be safely reduced. The demands for service upon the Signal Corps have become more urgent, owing to the great reduction in the garrisons and consequent increase in telegraphic correspondence.

In addition, the Moro troubles in Mindanao require large expenditures for flying lines necessary to keep the field columns in communication with their bases.

It being impossible to obtain electrical appliances of any kind in the Philippine Islands or in the English settlements, except in limited amounts and at most extravagant prices, the policy has been forced upon the Chief Signal Officer of maintaining at Manila liberal supplies of wire, battery material, instruments, etc., for emergencies. This surplus has been reduced to the minimum consistent with reasonable provision.

#### AUTOMOBILES.

Appreciating the great importance of auto-propelled vehicles in connection with telegraph trains and balloon trains, the Chief Signal Officer of the Army has continued experiments with automobiles.

Three different types of machines have been tried—the electric, steam, and internal-combustion. Signal Corps experiences have demonstrated the practicability of self-propelled vehicles for such military purposes, and while the good points of the electrical and steam-propelled vehicles have been thoroughly recognized, for war purposes the internal-combustion type seems preferable, especially one using either kerosene or other oil.

The internal-combustion type possesses valuable features in its small fuel and water consumption, these being absolutely essential qualities to any army, as the various circumstances under which military automobiles must be used are such as frequently preclude available external supplies of fuel and water. This country has not as yet developed a satisfactory vehicle of the internal-combustion type which can use crude oil, and so especially suited to Signal Corps needs. The design of auto-propelled carriages in this country has run more to road types, either for speed or for touring purposes, and the auto truck for carrying heavy loads has not been sufficiently developed for carrying purposes outside of cities. The Chief Signal Officer is, however, of the opinion that the ingenuity of the American manufacturer will soon place him abreast of foreign practice in this line.

In the past, despite repeated and urgent requests by the Chief Signal Officer of the Army, it has been impossible to find an American manufacturer of acknowledged standing who would consent to construct for the Signal Corps an automobile along such indicated lines of structure, fuel, and fittings as are deemed necessary for efficient use as self-propelling vehicles forming part of flying telegraph trains or balloon trains. It is thought, however, that such type will soon be developed. The experience of the Signal Corps has been confirmed by experiments of the foreign military experts, which prove the utility, reliability, and efficiency of auto-propelled vehicles for military purposes.

#### ARMY AND NAVY MANEUVERS IN LONG ISLAND SOUND.

The army and navy maneuvers on the south coast of New England offered an admirable opportunity for testing Signal Corps work. Concerning these maneuvers, the Chief Signal Officer of the Army, who took the field personally as a staff officer to General MacArthur, has elsewhere reported fully.

It need only be said here that the Signal Corps system of fire-control communication, worked out along the lines of modern electrical theories, was not only permanently installed, but, having its first extended test under simulated war conditions, worked successfully. It was necessary, however, for Signal Corps officials to exercise supervisory control, as stated under fire-control communications.

#### WAR DEPARTMENT TELEGRAPHIC CODE.

Under paragraph 1741, Army Regulations, the Chief Signal Officer of the Army is charged with the preparation, distribution, and revision of the War Department telegraphic code. The extraordinary telegraphic expenses of the War Department in late years make this work of economical importance.

The preparation of this code has devolved upon the Chief Signal

Officer personally, as there was no other available officer having combined knowledge of telegraphy, military usages, special vocabularies, and the commercial cable regulations of the world.

In the preparation of the War Department telegraphic code care has been taken to omit words which, either in the continental code or American Morse, are of such telegraphic character as to lead to errors, whether in the transmission of cipher messages or from defective transcription. The War Department telegraphic code is supplemented by the Western Union telegraphic code, and from time to time appendices have been issued, as the code is not yet perfected. It includes about 25,000 sentences that are frequently used in military correspondence. On an average, each cipher word represents about seven words in plain text. The necessity for economy is apparent, as official cablegrams to the Philippines cost \$1.65 for each word, including address and signature.

Specially prepared tables reduce the length of official messages to a minimum. In connection with certain classes of business a single word acknowledges the messages and conveys to the sender the action taken thereon. Nearly every officer in the Army has a single code word assigned to him, and the same course is followed with each separate military organization. For instance, the code word "nettastome" means "Company B, Twenty-fifth Regiment United States Infantry;" the word "novellarem" means, "Your requisition of the 26th received and will be filled at the earliest opportunity;" the code word "krediet" means, "With reference to your telegram of 23d, your recommendation disapproved," and the word "krenkers," "With reference to your telegram of 24th, favorable action will be taken thereon at earliest possible date."

Although primarily a code for economy, yet the War Department telegraphic code is available for enciphering important confidential messages where secrecy is desired. Each code word has a number, so that any method, either simple or complex, of enciphering by key numbers can be readily used.

The Chief Signal Officer of the Army has awaited the completion of the reorganization of the Army before perfecting the much-needed revision of the code, whereby a still larger saving can be made in telegraphic expenses.

In the revision every officer of the Army will be given a code word, and special study will be made of frequently recurring phrases. Much has already been done in this direction, but the revision could not be perfected until the personnel of the commissioned force of the Army was definitely known.

Various suggestions looking to the use of a code composed of figures alone have been made. Any such step is clearly a retrogression in efficiency, and as a rule more costly. The telegraph experts of the world have for years been trying to eliminate figures, and there is no telegraph corporation in the United States that does not discourage their use. Commercial regulations on land lines require, when figures are sent, that they be paid for twice as separate figures and in any written form. The Signal Corps of the Army has tested thoroughly the figure system, which was displaced to advantage.

#### UNITED STATES ARMY AND WAR DEPARTMENT LIBRARY.

This library, established in 1800, has in late years become an important auxiliary to the educational needs of the service both in Washing-

ton and wherever army officers can be conveniently reached by mail, the more extended circulation being authorized by General Orders, No. 21, War Department, Adjutant-General's Office, series of 1894.

By a direct order of the Secretary of War in 1893, the library was placed under the supervision of the Chief Signal Officer of the Army, he being charged with the general supervision of the library work. The labors of the Chief Signal Officer of the Army have been greatly lightened by the efficient and intelligent services of the librarian, Mr. James W. Cheney.

Within the past ten years the number of volumes has been doubled, while the general usefulness of the collection has increased in still greater proportion.

Professional publications only are purchased for the library, including, besides strictly military publications, works of history, geography, and administration, and kindred subjects of importance to the War Department and the Army. Especial attention has been paid since the beginning of the Spanish war to the accumulation of works treating of Cuba, colonial administration, China, Japan, Porto Rico, and the Philippines. The official gazettes of Habana, Manila, Madrid, and Porto Rico have been added in almost complete series for the past thirty years, and have proved most valuable adjuncts for the proper administration of American affairs in the islands to which they pertain. As books of reference they are simply invaluable, and they were obtainable only by special and active interest on the part of the Chief Signal Officer of the Army.

The total number of books in the library proper, excluding duplicates, on June 30, 1902, is estimated at 45,000. The accessions for fiscal year 1901-2 were divided as follows: Purchases, 561; exchanges, 590, under the law of January 12, 1895; donations, 2,249. The loans to army officers and Department employees during the year exceeded 17,000—a very large increase over the circulation of the previous year. The number of books consulted during the year was 7,385.

For purposes of historical and technical reference, this library is often visited by authors and other consulting students, who thoroughly appreciate the valuable resources and easy accessibility of this division. The library not only contains the highest authorities in military history and science, but has one of the finest collections of Congressional documents in existence. This comprises the original Senate and House journals, an exceptional large number of documents and reports of the first fourteen Congresses, and every volume but one printed by Congress since the beginning of the Fifteenth Congress. An elaborate finding list of early Congressional papers, First to Fourteenth Congresses, prepared in this library under the immediate supervision of the Chief Signal Officer, was issued as Senate Doc. No. 428, Fifty-sixth Congress, first session.

Subject Catalogue No. 5 is a finding list of over 8,000 valuable photographs and negatives relating to the war for the Union in the possession of the library. This collection and a large number of Spanish-American and Philippine views are carefully preserved for historical reference and reproduction under proper restrictions.

The Chief Signal Officer notes with pleasure the gratifying results of better classification, more effective service, and marked improvement all along the various lines of work, due to the intelligent methods of Librarian James W. Cheney and his staff.



## DISTRIBUTION OF WAR DEPARTMENT DOCUMENTS.

Nearly all the publications issued by the War Department are received, temporarily stored, and carefully distributed by this division. About 55,000 documents have been disposed of during the year. This work has been most efficiently performed by the shipping clerk, Mr. F. A. Schneider, and his faithful assistant, both of whom are entitled to great credit for having accomplished such satisfactory results under very unfavorable working conditions.

A. W. GREELY,

*Brigadier-General, Chief Signal Officer of the Army.*

The SECRETARY OF WAR,  
*Washington, D. C.*

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**REPORT OF THE CHIEF OF THE RECORD  
AND PENSION OFFICE.**

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REPORT  
OF THE  
CHIEF OF THE RECORD AND PENSION OFFICE.

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RECORD AND PENSION OFFICE,  
*War Department, October 1, 1902.*

SIR: The number of cases received and disposed of by the Record and Pension Office during the fiscal year ended June 30, 1902, was as follows:

From the Pension Office .....	100, 201
From the Auditor for the War Department.....	26, 701
Remuster cases.....	3, 081
Desertion cases.....	2, 353
All other cases, miscellaneous.....	36, 686
Total .....	169, 022
On hand June 30, 1902.....	None.

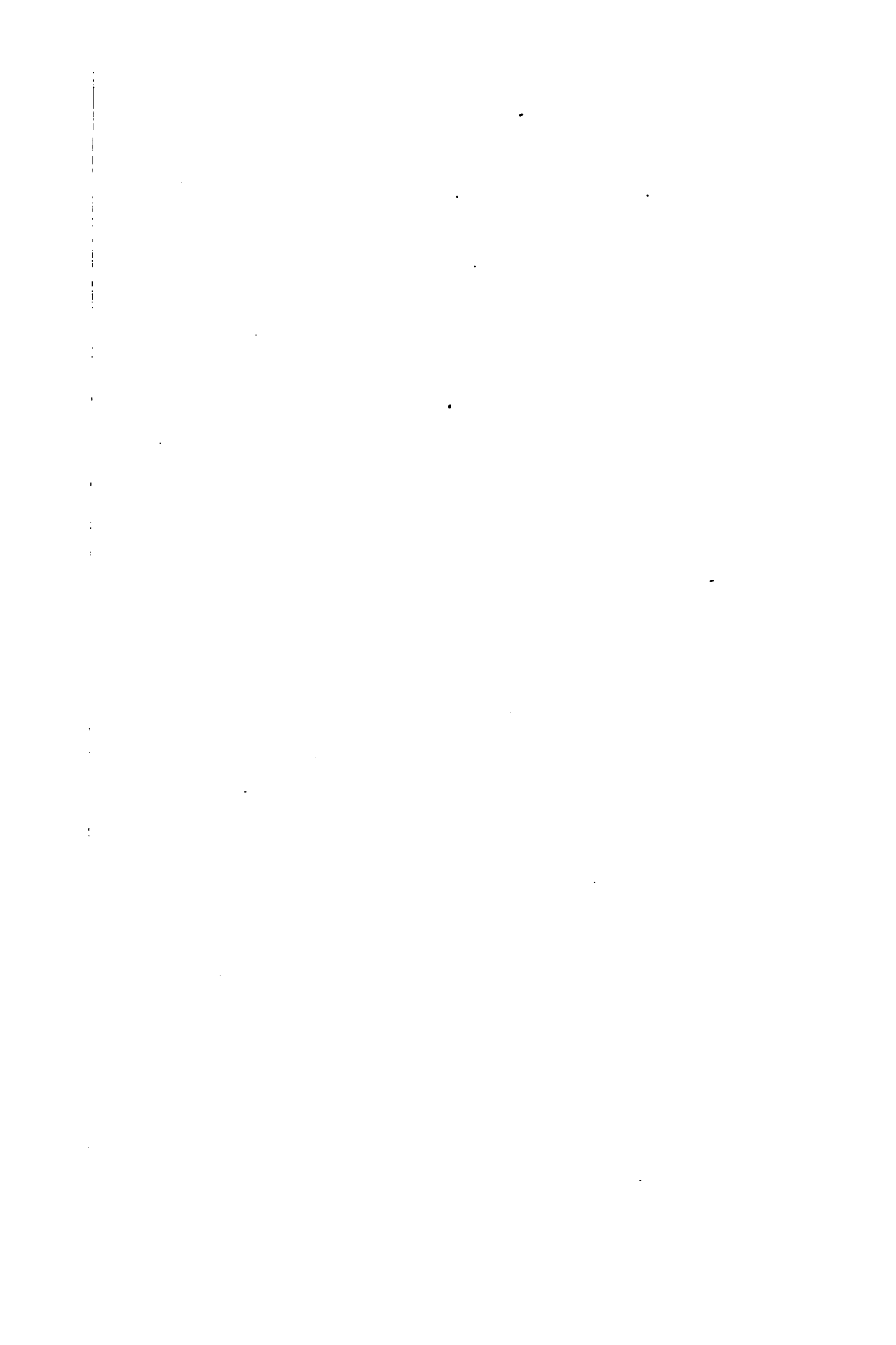
Of the pension cases referred to, 3,272 were calls from the Commissioner of Pensions for statements of service and medical or surgical treatment of officers and enlisted men of the Philippine insurrection or for specific information relative to their service or status; 18,276 were similar calls from the same official for information relative to Spanish war volunteers, and 78,653 were calls for military histories of former members of volunteer organizations in service during the civil war or other wars preceding the war with Spain.

The cases received from the Auditor for the War Department were calls for information relative to the military service or status of officers and enlisted men of the volunteer forces. Of these calls 6,253 related to service in the Philippine insurrection, 5,128 to service in the war with Spain, and 15,320 to service in prior wars, principally in the war of the rebellion.

Notwithstanding the questions constantly arising relative to the status of members of the recently disbanded forces, and equally intricate questions relative to service in the earlier wars, all of which require careful administrative action, the business of the office has been promptly dispatched, nearly 93 per cent of the cases received during the fiscal year having been disposed of within twenty-four hours from the time they reached the office, and at the close of business on the 30th of June not one case remained unacted upon.

**REMUSTER.**

The statistical table shows an increased number of applications received during the fiscal year for "remuster," or recognition of rank as commissioned officers, under the provisions of the act of February



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REMUSTER.

The statistical table shows an increased number of applications received during the fiscal year for "remuster," or recognition of rank as commissioned officers, under the provisions of the act of February

24, 1897, for "the relief of certain officers and enlisted men of the volunteer forces." That act applies only to persons commissioned as officers of the volunteer forces during the civil war.

The practice of the Department in this class of cases has been modified to some extent during the past year by the adoption by the Secretary of War of the construction placed upon some provisions of the law by the Attorney-General of the United States and the Judge-Advocate-General of the Army.

#### REMOVAL OF CHARGES OF DESERTION.

The number of applications for removal of charges of desertion under the act of March 2, 1889, and the acts amendatory thereof, is gradually diminishing. These acts relate exclusively to regular and volunteer soldiers of the civil war and the war with Mexico. But few applications for removal of the charge of desertion have been received from members of volunteer organizations in service during the Spanish war and the Philippine insurrection. In the few cases received in which it is clearly shown by the records that the charge is erroneous a notation has been made declaring the erroneous character of the charge, thus relieving the soldier from the effects of an unjust accusation. It is, however, a well-established rule of the Department that in the absence of legislation requiring it *ex parte* testimony can not be accepted to invalidate the records of disbanded organizations in cases where the records do not themselves afford reasons for questioning their accuracy.

#### MISCELLANEOUS CASES.

The miscellaneous or unclassified cases mentioned in the statistical table, the character of which has been described in previous annual reports, are of great variety, including an extensive correspondence with individual members of both Houses of Congress and the large number of reports furnished the various Congressional committees. During the last fiscal year 4,170 inquiries were received from Senators and Members of the House of Representatives, embracing a great variety of subjects, and 516 reports were made in response to calls from Congressional committees for information and advice on subjects of pending or proposed legislation.

#### INFORMATION INFORMALLY FURNISHED OTHER BUREAUS.

In addition to the classified and unclassified cases mentioned in the statistical table, many cases are annually received and disposed of by the Record and Pension Office of which no formal record is kept. Among these may be mentioned calls from the Quartermaster-General of the Army for information from the records for use in the adjudication of claims under the act of February 3, 1879, and subsequent acts, for headstones to mark the graves of deceased volunteer soldiers; calls from the Adjutant-General of the Army for the records of former officers of volunteers applying for appointment in the Regular Army or to determine the relative rank of those already appointed in the regular establishment, and calls from the Adjutant-General for the records of former volunteer soldiers with a view to their enlistment in the Regular Army or to establish their title to longevity pay.

The informal calls from the Quartermaster-General received and

answered during the last fiscal year numbered 10,133, and it is estimated that 3,500 such informal calls from the Adjutant-General were received and answered during the same period.

#### CLAIMS OF PAROLED CONFEDERATE OFFICERS AND ENLISTED MEN.

A new class of cases has recently arisen, the adjudication of which by the War Department involves a search of the records of the Record and Pension Office. The cases referred to are the claims arising under the act of Congress approved February 27, 1902, authorizing the payment of artillery and cavalry officers and private soldiers of the Confederate army, or their heirs, for horses, side arms, and baggage alleged to have been taken from such officers and enlisted men by Federal troops at and after the surrender at Appomattox, in violation of the terms of surrender of the Confederate armies. These claims are, under the terms of the law, investigated and determined by the Quartermaster-General of the Army, under the supervision of the Secretary of War, but the necessary investigation requires in each case a search of the records of this office for such information as the records afford relative to the capture and parole of the individual officer or enlisted man, the taking of his personal property, and the orders under which the property was taken. The search necessary in these cases is extensive and involves the expenditure of considerable time and labor. From the date of the approval of the act to the end of the fiscal year, a period of four months, calls were received from the Quartermaster-General for information in the cases of 302 individual claimants under the act referred to.

#### TERMINATION OF SERVICE OF VOLUNTEERS, PHILIPPINE INSURRECTION.

The act of March 2, 1899, under which the volunteer regiments in service during the Philippine insurrection were organized, contained the proviso that the volunteer forces to be raised under its authority should continue in service only during the existence of the necessity therefor, and "not later than July 1, 1901." In accordance with this provision of the law, enlistments were made "for the period ending June 30, 1901, unless sooner discharged by proper authority."

Orders were issued by the War Department directing the muster out of officers and enlisted men on or before June 30, 1901, but, through exigencies that could not be avoided, the muster out of several regiments and parts of regiments was delayed and did not actually take place until several days after the date to which the employment of volunteers was authorized by the act. A question soon arose as to the status of the officers and enlisted men whose muster out was thus delayed, and as to the status of an officer whose regiment was mustered out within the prescribed limit of time, but who claimed to have been himself retained in service after July 1, 1901, by competent authority. It was decided by the Secretary of War, concurring in the opinion of the Judge-Advocate-General of the Army, that the terms of service of the officers and enlisted men of the volunteer forces called into service under the act of March 2, 1899, who were in service July 1, 1901, were terminated on that date by the mandatory operation of section 12 of the act referred to, and that in the absence of remedial legislation it can not be held that such officers and enlisted men were legally in the military service of the United States after July 1, 1901.



## JURISDICTION OF COURTS-MARTIAL.

Questions have also arisen as to the status of officers and enlisted men of the volunteer forces, under a recent decision of the Supreme Court of the United States that the court-martial by which a certain volunteer officer was tried was without jurisdiction, the court having been composed in part of officers of the Regular Army, in contravention of the seventy-seventh article of war, and that the sentence imposed was, for that reason, void and inoperative. This decision affects the status of a considerable number of officers and enlisted men of the volunteer forces in service during the Spanish war and the Philippine insurrection.

In the case of a volunteer officer in service during the Philippine insurrection, under a Presidential appointment, who was sentenced by such an illegal court-martial to dismissal from the service and whose successor was appointed by the President and confirmed by the Senate, the following questions presented themselves: (1) On what date was the officer separated from the military service of the United States? (2) What was the cause of his separation from the service? (3) What was his official status on the date of his separation from the service? (4) Was his separation from the service honorable, not honorable, or dishonorable?

It was decided by the Acting Secretary of War, concurring in an opinion of the Acting Attorney-General of the United States, that the officer was discharged from the service on the date from which his successor was to take rank by the terms of his appointment and that his discharge was by reason of the appointment of his successor; and, concurring in an opinion of the Judge-Advocate-General of the Army, that the officer's status at the date of his discharge was that of an officer under charges, and that the discharge, though not of the dishonorable character attaching to a dismissal by sentence of court-martial, was nevertheless a discharge without honor.

In the case of a volunteer enlisted man of the Spanish war, sentenced by an illegal court-martial to be dishonorably discharged and to be confined at hard labor for a term of years, it was decided by the Acting Secretary of War, concurring in an opinion of the Judge-Advocate-General, that the soldier was continued in service to the date of the muster out of his company and was discharged on that date, without honor, by reason of the muster out of the organization to which he belonged.

## CERTIFICATES IN LIEU OF LOST DISCHARGES.

During the last session of Congress, by an act approved July 1, 1902, the Secretary of War was authorized to furnish to any honorably discharged officer or enlisted man who has lost his certificate of discharge, or whose discharge certificate has been destroyed without his privity or procurement, or to the widow of such officer or enlisted man, a certificate in lieu of his original discharge certificate, upon the condition that the certificate in lieu of the original lost or destroyed discharge certificate "shall not be accepted as a voucher for the payment of any claim against the United States for pay, bounty, or other allowances, or as evidence in any other case."

This act is in effect an extension of the provisions of the act of March 3, 1873 (reenacted in section 224 of the Revised Statutes), in which, under the same conditions as to the loss or destruction of their original discharge certificates, but without limitation as to character of discharge, the Secretary of War was authorized to issue duplicate certificates of discharge to enlisted men of the war of the rebellion. The act of 1873 did not, however, authorize the issue of such certificates to commissioned officers of the civil war, or to officers or enlisted men of any other war, or to the heirs of deceased officers or enlisted men, and in this respect the new law is far more comprehensive than the old, including as it does among its beneficiaries not only the honorably discharged enlisted men of the civil war, but also the honorably discharged officers and enlisted men at any time in the military service of the United States and the widows of those who are deceased.

Many thousands of certificates have been issued under the act of March 3, 1873, and there appears to be no diminution in the number of applications for such certificates, 87,621 having been received since the organization of the Record and Pension Office, and 6,108 having been received and acted upon during the last fiscal year.

Considerable labor is involved in the consideration of these applications, proof being required by the statute as to the loss or destruction of the original discharge certificate, and satisfactory evidence of the identity of the applicant being also required in each case as a preliminary to the issue of a new certificate of discharge.

#### MEDALS OF HONOR.

In the last annual report of this office considerable space was given to the subject of the issue of medals of honor. It was shown in that report that up to June 30, 1901, 2,023 Congressional medals had been awarded to officers and enlisted men of the volunteer forces. Those awards were all on account of service rendered during the civil war. During the last fiscal year 58 applications were received for the award of medals of honor to survivors of the civil war, but none of these applications was favorably considered by the Secretary of War. No applications were received at this office during the same period in behalf of Spanish war volunteers, and no awards were made. Twenty-one medals were awarded during the fiscal year to members of the volunteer organizations in service during the Philippine insurrection.

A board of officers has recently been convened by the Acting Secretary of War to consider all applications for the award of medals of honor. Under the orders of the Acting Secretary of War all such applications in behalf of officers and enlisted men of the volunteer service are received and recorded in the Record and Pension Office, where all necessary action is taken to prepare them for decision and whence they are submitted to the Secretary of War after having received the indorsements and recommendations of the medal of honor board. After the decision of the Secretary of War is made the further necessary action is taken by the Record and Pension Office.

#### PUBLICATION AND DISTRIBUTION OF THE OFFICIAL RECORDS OF THE UNION AND CONFEDERATE ARMIES.

At the date of the last annual report the publication of the Official Records of the Union and Confederate Armies had been virtually com-

pleted, the text of the general index being then in the hands of the Public Printer. The printing and distribution of the general index has since been completed, and the great work of publishing such of the records of the civil war as are of general historic interest is finished.

The general character and scope of the work were described in the last annual report, and a brief history of the work is published in the preface to the final volume, the general index before referred to. This volume also contains a synopsis of the contents of the several preceding volumes, including a summary of the principal operations covered by each; a special index showing the volumes containing reports and correspondence relating to the principal armies, military divisions, departments, and army corps; and a table of contemporaneous operations, indicating the volumes containing documents relating to events and operations in each month from December, 1860, to the end of the war.

The general index also contains a table of "Additions and Corrections," in which the errors and omissions discovered after the publication of the different volumes are corrected or supplied. These additions and corrections have also been printed in pamphlet form for each volume, to be inserted in the volumes to which they relate, and these pamphlets will be supplied to all persons, libraries, and organizations on the distribution list.

The distribution of the small editions of the publication authorized by special provisions of law for the use of members of Congress was completed during the year, with the exception of a few sets remaining to the credit of members of the Fifty-sixth Congress who have not as yet designated the persons to whom the volumes shall be sent.

Sixteen thousand two hundred and thirty-nine books were received from the Public Printer during the fiscal year, and 48,007 books were distributed. The pamphlet edition of the "Additions and Corrections," before referred to, numbering 781,000 separate slips or pamphlets, was also received from the Public Printer. These pamphlets are now in process of distribution.

The sum of \$811.65 was received during the fiscal year as the result of the sale of books and maps, all of which was deposited in the United States Treasury as required by law.

#### INDEX-RECORD CARD WORK.

At the date of the last annual report the work of reproducing, by the index-record card system, the records relating to the personnel of the Revolutionary armies, and of the volunteer forces of the United States in service during the subsequent wars preceding the war with Spain, had been virtually completed, the records of the war with Spain had been carded, with the exception of some of the delayed medical records, and the work of carding the medical records of the Philippine insurrection had been begun.

During the last fiscal year the carding of the Spanish war records and the medical records of the Philippine insurrection was completed, and the reproduction of the military records of the Philippine insurrection was begun and prosecuted with such success that at the close of the year the work was well advanced and is now rapidly approaching completion.

As intimated in previous reports, much remains to be done in the

reproduction of the miscellaneous records of the various wars. A portion of the clerical force was employed during the last fiscal year in carding these records, but with the completion of the carding of the records of the Philippine insurrection a larger number of clerks will be available for this purpose.

The index-record card work of the last fiscal year included the preparation of 677,267 military cards and 216,485 medical cards, making, with the number prepared in previous years, a total of 43,059,174 of the former and 7,776,929 of the latter class, aggregating 50,836,103 index-record cards prepared up to and including June 30, 1902.

#### RECORDS OF THE REVOLUTIONARY WAR AND WAR OF 1812.

As mentioned in previous reports, the Congressional enactments directing the transfer of the records of the Revolutionary war and the war of 1812 from other Executive Departments to the War Department required that they should be "properly indexed and arranged for use," and that they should also be "prepared for publication."

By the application of the index-record card system these records have been "indexed and arranged for use," but no further preparation has been made for their publication, and it is not deemed advisable to undertake the publication of any portion of the records of the Revolutionary war until the War Department collection shall be more nearly complete than it has heretofore been possible to make it.

The Revolutionary records in the possession of some of the States have been loaned to this Department, and, after being copied, have been returned to their former custodians. It is expected that the collection of such records filed in this Department will be further augmented in the same manner. But until the work of reproducing the records of the more recent wars shall have been completed and the pressure of current business shall have been somewhat relaxed, it will be impracticable to enter seriously upon the task of completing the file of Revolutionary records or of undertaking the publication of the records of either the war of the Revolution or the war of 1812. No specific authority for the publication of either class of these records has yet been granted by Congress, but the requisite legislative authority for their publication will doubtless be given, and the necessary appropriation made, as soon as the Department is prepared to enter upon the work.

#### CONFEDERATE ARCHIVES.

The Confederate archives filed in this office, though by no means complete, are of great volume, and relate to all branches of the late government of the Confederate States, legislative, executive, and judicial. Most of these records were seized by the military authorities upon the capture of the Confederate capital, and were transmitted to the War Department in 1865 for preservation. They were augmented by subsequent captures, by donations, and by purchase. They are of great historic value, and perhaps of still greater practical value as evidence in the determination, by the courts and the Executive Departments of the Government, of claims against the United States. For the latter purpose they are in constant demand, especially in cases heard by the Court of Claims, and as to their competency as evidence it was held by the Supreme Court of the United States in 1899 (Oakes

v. U. S., 174 U. S., 778), Mr. Justice Miller delivering the opinion of the court, that although the government of the Confederate States was in no sense a government de jure, and was never recognized by the United States as in all respects a government de facto, its records, collected and preserved by the United States at great expense, or duly certified copies of them, are admissible in a court of justice.

CLERICAL FORCE.

As a result of the adoption of improved business methods, and especially because of the application of the index-record card system to the military and medical records, the clerical force of the Record and Pension Office has been greatly reduced since the organization of the office as a bureau of the War Department, a reduction of 300 having been made in 1894, 50 in 1895, 25 in 1897, 32 in 1900, and 42 for the present fiscal year. The total reductions in the clerical force have resulted in an annual saving of \$501,540 in salaries alone.

Very respectfully,

F. C. AINSWORTH,  
*Brigadier-General, U. S. A.,*  
*Chief, Record and Pension Office.*

The SECRETARY OF WAR.

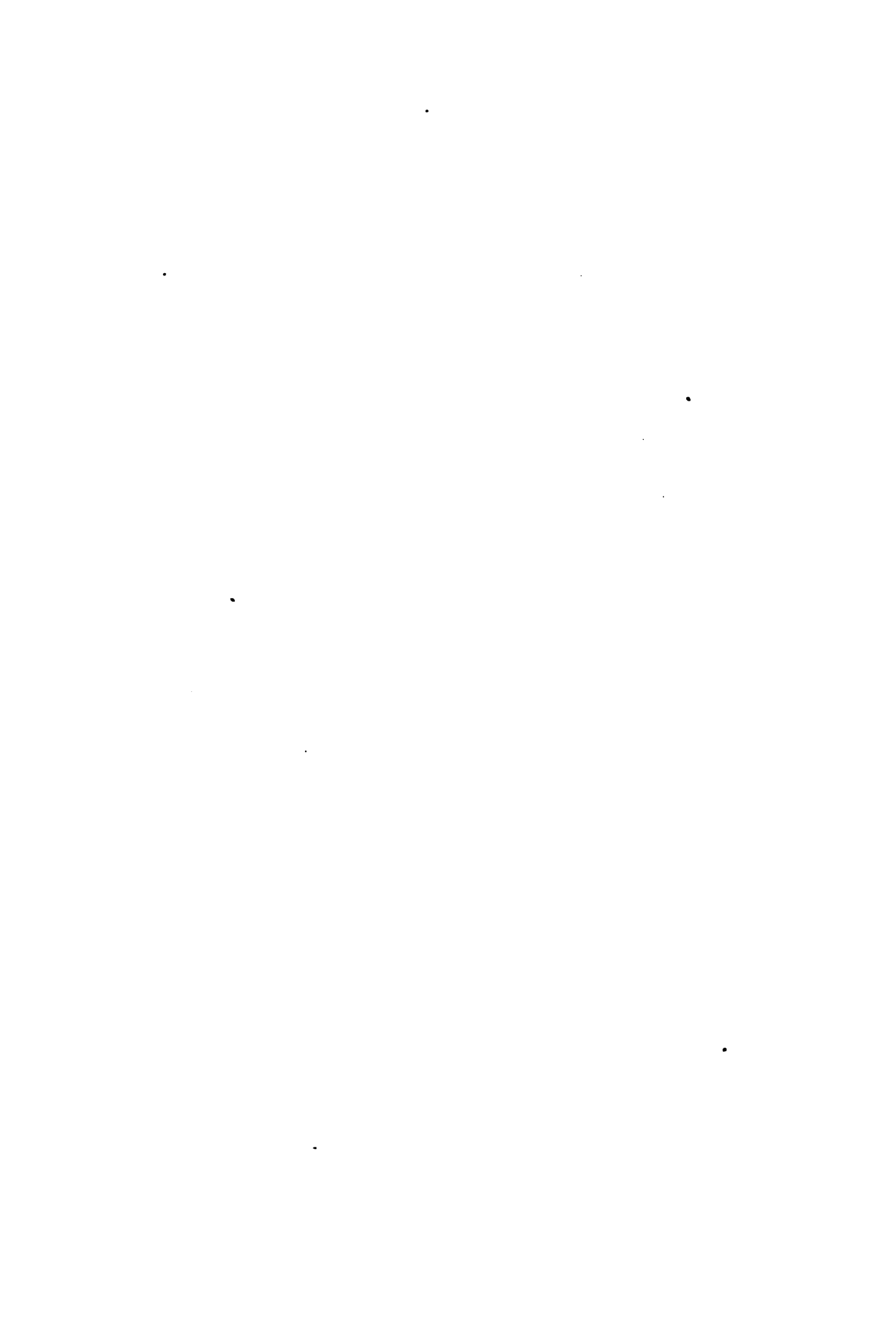
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REPORT OF THE CHIEF OF THE BUREAU  
OF INSULAR AFFAIRS.

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REPORT  
OF THE  
CHIEF OF THE BUREAU OF INSULAR AFFAIRS.

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WASHINGTON, D. C., *October 30, 1902.*

SIR: I have the honor to submit the following annual report of the Bureau of Insular Affairs:

The report of the Secretary of War, dated November 27, 1901, contains the following statement of the conditions necessitating the creation of this Bureau:

*General policy of Government.*—The policy followed by the American Executive in dealing with the government of the Philippines (and also in dealing with the government of the other islands ceded or yielded by Spain which have been under the control of the War Department) has been to determine and prescribe the framework of insular government; to lay down the rules of policy to be followed upon the great questions of government as they are foreseen or arise; to obtain the best and ablest men possible for insular officers; to distribute and define their powers; and then to hold them responsible for the conduct of government in the islands with the least possible interference from Washington.

Notwithstanding a rigid adherence to this policy, and consistently with it, the demands upon the Department for action in the vast and complicated business in the island governments have been constant and imperative. Different civilizations, different systems of law and procedure, and different modes of thought brought into contact have evolved a great crowd of difficult questions for determination. New facts ascertained and changed conditions have called for the interpretation and application of our own rules of policy and the establishment of further rules. Different views as to the scope of authority under the distribution of powers have required reconciliation. The application of the law of military occupation to rights and practices existing under the laws of Spain and the process of overturning inveterate wrongs have brought about frequent appeals to the highest authority, which, being made in the name of justice, have required consideration. The work undertaken has been the building up of government from the foundation upon unfamiliar ground. We have had no precedents, save the simple and meager proceedings under the occupation of California and New Mexico, more than half a century ago, and it has been necessary to decide every question upon its own merits and to make our own precedents for the future.

For the performance of all these duties full and accurate knowledge of the conditions and proceedings of all the governments in all the islands on the part of the authorities in Washington has been required. It has been necessary to follow them step by step. The President and Congress have looked to the War Department for information as to how the trust of government in the various islands was being performed, and tens of thousands of applications by the people of the United States for every conceivable kind of information regarding the islands have poured into the Department in an uninterrupted stream.

Only thorough system could arrange, record, and keep available for use the vast and heterogeneous mass of reports and letters and documents which this business has involved, furnish answers to the questions, conduct the correspondence, and



keep the Secretary of War from being overwhelmed in hopeless confusion. The War Department had no machinery for the purpose. No provision for any such administrative machine was made by law. Of necessity, by the detail of officers and the employment of the temporary clerks authorized by law, such machinery has been created in the Department with a chief, an assistant chief, a law officer, a competent force of translators, accountants, stenographers, and recording and indexing and copying clerks. It is called the *Division of Insular Affairs of the War Department*, and it performs with admirable and constantly increasing efficiency the great variety of duties which in other countries would be described as belonging to a colonial office, and would be performed by a much more pretentious establishment.

This quotation was followed by a recommendation which resulted in the following enactment of "An act temporarily to provide for the administration of the affairs of civil government in the Philippine Islands, and for other purposes," approved July 1, 1902.

SEC. 87. That the Division of Insular Affairs of the War Department, organized by the Secretary of War, is hereby continued until otherwise provided, and shall hereafter be known as the Bureau of Insular Affairs of the War Department. The business assigned to said Bureau shall embrace all matters pertaining to civil government in the island possessions of the United States subject to the jurisdiction of the War Department; and the Secretary of War is hereby authorized to detail an officer of the Army whom he may consider especially well qualified, to act under the authority of the Secretary of War as the chief of said Bureau; and said officer while acting under said detail shall have the rank, pay, and allowances of a colonel.

The Division of Insular Affairs, therefore, on July 1, 1902, became the Bureau of Insular Affairs of the War Department, and the Secretary of War pursuant to the above authority detailed the undersigned as chief.

#### ORGANIZATION.

The Bureau is divided into the following divisions: Law officer, Correspondence, Records, Disbursing and Accounting, Compilation, Statistical (commerce and immigration), Philippine insurgent records and captured documents compilation.

#### PERSONNEL.

[Permanent force.]

One army officer, chief of Bureau; one law officer; one assistant to the chief, and the following clerks:

Class V (chief clerk) .....	1
Class IV (clerks) .....	5
Class III (clerks) .....	5
Class II (clerks) .....	7
Class I (clerks) .....	11
Class E (clerks) .....	10
Class D (clerks) .....	11
Class C (clerks) .....	3
	53
Messengers .....	6
Laborers .....	2
	8
Total number of permanent employees .....	61

Congress had shown a desire to have complete and up-to-date information on the receipts and expenditures in Cuba and in the Philippines, a work of such magnitude as to require considerable extra force for the preparation of the same.

The following item is contained in the general deficiency bill, which became a law July 1, 1902:

To enable the Secretary of War to employ temporary force and to pay all necessary expenses, including rent of rooms, not to exceed one thousand five hundred dollars, in compiling for the information of Congress a detailed statement of the receipts and expenditures by the military government of Cuba since May first, nineteen hundred, in continuation and completion of the statements heretofore furnished of such receipts and expenditures covering the period from the beginning of American occupation to and including April thirtieth, nineteen hundred; and to enable the Secretary of War to pay all necessary expenses in compiling for the information of Congress a similar statement relating to the Philippine Islands of all receipts and expenditures from the date of American occupation, thirty thousand dollars, or so much thereof as may be necessary, to be available until expended.

Pursuant to this authority a temporary force consisting of 33 employees was located in the building, corner of Eighteenth and F streets, to which building the Statistical Division, and the Accounts Branch and Map Section were moved, thus relieving the unsanitarily overcrowded rooms in the War Department.

#### INFORMATION FOR CONGRESS.

During the first session of the Fifty-seventh Congress the attention of that body was largely devoted to Philippine legislation, resulting in the act of March 8, 1902, "An act temporarily to provide revenue for the Philippine Islands, and for other purposes," which ratified and confirmed, without criticism of any schedule, the Philippine tariff, revised by the Secretary of War and enacted into law by the Philippine Commission, also the bill entitled "An act temporarily to provide for the administration of the affairs of civil government in the Philippine Islands, and for other purposes," approved July 1, 1902.

Here should be mentioned the fact that the Philippine Committee of the Senate held hearings from January 21 to June 28, 1902.

In anticipation of approaching close of American occupation in Cuba, the proposed reciprocal trade relations between that country and the United States were given much consideration by Congress.

Thus was created a large and constant demand on this Bureau for information on the Philippines and Cuba, first, on the part of Congress by resolutions on the Secretary of War, which were referred to this Bureau for initial preparation, and second, by Congressional committees, the press, and the public in general.

The Congressional resolutions and documents illustrating this demand for information follow:

#### GAZETTEER OF THE PHILIPPINE ISLANDS.

The following concurrent resolution passed the Senate January 22, 1902:

*Resolved by the Senate (the House of Representatives concurring), That there be printed and bound in cloth 4,000 copies of the Gazetteer of the Philippine Islands, 1,000 copies for the use of the Senate, 2,000 for the use of the House of Representatives, and 1,000 copies for the use of the War Department.*

With the exception of an appendix the Gazetteer is now ready for distribution. The delay in its printing, caused by the time occupied in the reproduction of maps and illustrations as well as in the composition, gave this office the chance to embody therein the constant changes

in and additions to the data up to and including the important date of July 4, 1902, upon which day the President's proclamation of amnesty and complete transfer of government from the military to the civil obtained. In fact, certain portions of the Gazetteer have been brought up to include October 30, 1902.

The aim of this work was described in the last annual report of this Bureau, which only claims for this Gazetteer that it is the best digest of information available, and at least that it will furnish a basis upon which a second edition can be made a most accurate work. Mr. de B. R. Keim, who has been in special charge of this work, is entitled to commendation for his indefatigable industry in its compilation.

#### BIBLIOGRAPHY OF THE PHILIPPINE ISLANDS.

This bibliography will be printed in a separate volume of probably over 600 pages as an appendix to the Gazetteer, to which it properly belongs.

Appreciating the need of such a work throughout the United States, it was inaugurated about the same time as the Gazetteer, some two years ago, in the hope that a list of books could be printed to aid in answering the thousand and one requests for information on the Philippines, about which country so little was then known in the United States.

With surprise it was soon realized that the bibliography was much greater than at first anticipated, and that the work, to be of real worth, should be complete and comprehensively arranged. The cooperation of the Librarian of Congress was therefore sought, not only by reason of his more numerous sources of information, but also that the expert bibliographer in the Congressional Library should arrange the combined work of both offices. Hearty cooperation was not only promised but given. The volume has been completed and sent to the Public Printer.

Most fortunately, through the courtesy of Hon. Pardo de Tavera, one of the Philippine Commissioners, who devoted many years to the compilation of a bibliography of the Philippines, both in Europe and Manila, his valuable collection of manuscripts and files was acquired for publication in a separate chapter of this work.

The complete bibliography contains over 7,000 titles, and is believed to be a valuable work.

From the number of requests already on hand it is recommended that Congress largely increase the present edition, which it is believed will be entirely inadequate.

NOVEMBER 27, 1901.

#### HOUSE.

This Bureau prepared for publication and indexed the report for 1901 of the Philippine Commission, which was submitted as an appendix to the report of the Secretary of War of last year, and was published as part of House Doc. No. 2, Fifty-seventh Congress, first session.

FEBRUARY 26, 1901.

#### SENATE.

*Resolved*, That the Secretary of War be directed to send to the Senate an English translation of the proceedings of the constitutional convention of the island of Cuba, as contained in the "Diario de Sesiones."

Answered March 31, 1902, inclosing about 3,000 pages of English translation. Two translators were engaged eight months on this work.

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DECEMBER 16, 1901.

SENATE.

*Resolved*, That the Secretary of War be, and he is hereby, directed to transmit to the Senate, at his earliest convenience, complete schedules of the customs tariffs enacted by the Taft Commission and heretofore enforced in the island of Luzon, Philippine Islands.

Answered January 15, 1902.

JANUARY 22, 1902.

SENATE

*Resolved*, That the Secretary of War be, and he is hereby, directed to transmit to the Senate copies of all suggestions, statements, criticisms, and correspondence between the War Department or any official thereof and any person or corporation relating to the customs tariff affecting the Philippine Islands which culminated in the tariff adopted by the Philippine Commission September seventeenth, nineteen hundred and one.

Reply February 4, 1902, published as Senate Doc. No. 171, Fifty-seventh Congress, first session.

SENATE.

A full memorandum relating to the tariff for the Philippine Islands was furnished by direction of the Philippine Committee of the Senate, and published as Senate Doc. No. 134, Fifty-seventh Congress, first session.

JANUARY 31, 1902.

SENATE.

*Resolved*, That the Secretary of War is directed to inform the Senate if the following has been passed by the Philippine Commission and is being enforced as a law in said islands and persons punished thereunder, and the date of the promulgation of such order, namely:

[No. 292. By the United States Philippine Commission.]

Sec. 2. Every person owing allegiance to the United States or the government of the Philippine Islands and having knowledge of any treason against them or either of them, who conceals, and does not, as soon as may be, disclose and make known the same to the provincial governor in the province in which he resides or to the civil governor of the islands, or to some judge of a court of record, is guilty of misprision of treason and shall be imprisoned not more than seven years and be fined not more than one thousand dollars.

Sec. 8. Every person who shall utter seditious words or speeches, write, publish, or circulate scurrilous libels against the Government of the United States or the insular government of the Philippine Islands, or shall tend to disturb or obstruct any lawful officer in executing his office, or which tend to instigate others to cabal or meet together for unlawful purposes, or which suggest or incite rebellious conspiracies or riots, or which tend to stir up the people against the lawful authorities or to disturb the peace of the community, the safety and order of the government, or who shall knowingly conceal such evil practices, shall be punished by a fine not exceeding two thousand dollars or by imprisonment not exceeding two years, or both, in the discretion of the court.

Sec. 9. All persons who shall meet together for the purpose of forming, or who shall form any secret society, or who shall after the passage of this act continue membership in a society already formed having for its object, in whole or in part, the promotion of treason, rebellion, or sedition, or the promulgation of any political opinion or policy, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment not exceeding one year, or both.

Sec. 10. Until it has been officially proclaimed that a state of war or insurrection against the authority or sovereignty of the United States no longer exists in the Philippine Islands, it shall be unlawful for any person to advocate orally, or by writing or printing or like methods, the independence of the Philippine Islands or their separation from the United States, whether by peaceable or forcible means, or to

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print, publish, or circulate any handbill, newspaper, or other publication advocating such independence or separation.

Any person violating the provisions of this section shall be punished by a fine not exceeding two thousand dollars and imprisonment not exceeding one year.

Answered February 4, 1902. Printed as Senate Doc. No. 172, Fifty-seventh Congress, first session.

SENATE.

Charles E. Magoon, law officer of this Bureau, on February 7, 1902, made a report on the subject-matter of above resolution, which was printed as Senate Doc. No. 173, Fifty-seventh Congress, first session.

FEBRUARY 13, 1902.

SENATE.

*Resolved*, That the Secretary of War be, and he hereby is, directed to inform the Senate what railroads, if any, are now being built in the island of Cuba, by whom, and under what authority of law.

Also what permission, if any, has been given by the military authorities of the United States in the island of Cuba for the building of any railroad, public or private, and under what provision of law such permission has been granted.

Answered March 12, 1902, and printed as Senate Doc. No. 246, Fifty-seventh Congress, first session.

FEBRUARY 24, 1902.

HOUSE.

*Resolved*, That the Secretary of War be, and he is hereby, requested to furnish the House of Representatives such information concerning the number of acres of land in Cuba purchased by nonresidents of the island since the date of American occupation as is shown by the reports to and the records of his Department and by the records of the military government of the island of Cuba, giving the consideration, the names and places of residence of purchasers as shown by the recorded instrument of conveyance, and also the number of acres contained in each tract so conveyed; also the acreage of cultivated sugar land in the island of Cuba now owned by citizens of the United States and also by citizens of other countries foreign to Cuba.

Official copy indorsed February 25, 1902, to the military governor of Cuba for report. March 4, 1902, the military governor of Cuba replied, saying the information would be gathered as rapidly as possible, but it would require searching of each and every register of property in the island, which would require probably three or four months. Copy of above reply was sent to the Speaker of the House March 28, 1902, and was printed as House Doc. No. 529, Fifty-seventh Congress, first session.

Full information as to the number of acres of land cultivated in sugar cane in the fiscal zones of Santiago de Cuba, Holguín, Cárdenas, Puerto Príncipe, and Cienfuegos was, as promised, transmitted from Cuba as soon as collated; is now translated and compiled, and will be transmitted to the House on the opening of next session. At the request of the chairman of the Committee on Relations with Cuba, copies of these reports have already been furnished him.

MARCH 18, 1902.

SENATE.

*Resolved*, That the Secretary of the Interior is directed to send to the Senate a statement of the traffic relations the railroads that connect with the waters of the Pacific Ocean and the Government of the United States, with a reference to the statutes upon which such relations have been conducted; and that the *Secretary*

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*of War* is directed to send to the Senate a statement of the legal and traffic relations between the railroads in the Philippine Islands and as to the charters and ownership of such railroads.

Reply, April 3, 1902, and printed as Senate Doc. No. 283, Fifty-seventh Congress, first session.

MARCH 26, 1902.

SENATE.

*Resolved*, That the Secretary of War be, and he is hereby, directed to communicate to the Senate copies of all papers and correspondence, arranged in chronological order, relating to the claims of Herrera's Nephews for the detention and use of their steamship *San Juan*, and of Gallego, Mesa & Company for the detention and use of their steamship *Tomás Brooks*, and the occupation and use of their wharves and warehouses by the military authorities of the United States at Santiago de Cuba in the years eighteen hundred and ninety-eight and eighteen hundred and ninety-nine.

Answered April 22, 1902, and printed as Senate Doc. No. 318, Fifty-seventh Congress, first session.

APRIL 11, 1902.

SENATE.

The Senate Committee on Philippine Affairs called for and published the report of Charles E. Magroon, law officer of this Bureau, on the application of Clemencia Lopez to the President for the release of her three brothers from the arrest and confinement ordered by Brigadier-General Bell, commanding the United States military forces in Batangas (see pp. 2589 et seq., Senate Doc. 331, Fifty-seventh Congress, first session).

APRIL 17, 1902.

SENATE.

*Resolved*, That the Secretary of War be, and he is hereby, directed to send to the Senate the following:

1. A statement of the amount of money paid by the United States for or on account of the Philippine Commission to the date when such expenses were paid out of the Philippine treasury.

2. A statement of the amount of money paid by the United States for or on account of railroad transportation for troops to and from the Philippine Islands since the ratification of the treaty of peace between the United States and Spain, and the several railway companies to which it was paid and the sums paid each of them.

3. A statement of the amount of money expended, and the amount, as far as he is able to state the same, for which the Government of the United States is liable, remaining unpaid for equipment, supplies, and military operations in the Philippine Islands each year from May first, eighteen hundred and ninety-eight, to the present time.

Reply published June 20, 1902, as Senate Doc. No. 416, Fifty-seventh Congress, first session.

APRIL 26, 1902.

SENATE.

*April 19, 1902.*—Submitted by Mr. Teller and referred to the Committee on Relations with Cuba.

*April 25, 1902.*—Reported and referred to the Committee to Audit and Control the Contingent Expenses of the Senate.

*April 26, 1902.*—Reported, considered, amended, and agreed to, as follows:

Whereas it has been currently reported that nearly the entire crop of Cuban sugar has been purchased and is now held by what is generally known as the "Sugar Trust," which is the principal consumer of raw sugar in the United States, and that any concessions given to the raisers of cane sugar in the island of Cuba or any measures intended for their relief by admitting their sugar at reduced rates of duty into

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the United States will only benefit said sugar trust, and that the Cubans will receive no real benefit from such real concessions; and

Whereas it is alleged that a large number of citizens of the United States have acquired large holdings of cane-producing lands in Cuba, and are now especially urging the reduction of duty on sugar under the claim that such reduction will benefit the people of Cuba: Therefore be it

*Resolved*, That the Committee on Relations with Cuba be, and is hereby, directed to make an investigation as to the truth of said charges and to report to the Senate.

That for the purpose of carrying out the above resolution the committee be, and hereby is, authorized to send for persons and papers, administer oaths, take testimony, employ a stenographer, and that the expenses of the investigation be paid from the contingent fund of the Senate upon vouchers approved by the Committee to Audit and Control the Contingent Expenses of the Senate. The committee is authorized to sit during the sessions of the Senate, and also to print from time to time its hearings.

The chairman of the Senate Committee on Relations with Cuba called on the Secretary of War for information under above resolution, which was forwarded to that committee in letters of May 8, 9, and 16, June 23, August 6, and September 2.

MAY 27, 1902.

SENATE.

*Resolved*, That the President be requested, if not in his opinion incompatible with the public interest, to inform the Senate whether there be any law or regulation in force in the Philippine Islands which will prevent any native of those islands who may so desire, not under arrest and against whom no charge of any offense against the United States is pending, from coming to the United States and stating his views or desires as to the interest of his people to the President or either House of Congress.

Answered May 20, 1902. Printed as Senate Doc. No. 390, Fifty-seventh Congress, first session.

MAY 29, 1902.

SENATE.

The Secretary of War sent to the Senate a statement of public civil revenues and expenditures therefrom in the Philippine Archipelago, from the date of American occupation, August 20, 1898, to June 30, 1901, showing the revenues for each of the fiscal years by items and places of assessment, and separately the expenditures in the several custom-houses; the postal expenditures, the expenditures by the auditor and the treasurer, and by captains of ports, and the general expenditures under civil headings, as classified by the auditor for the Archipelago.

This statement was prepared by the Insular Division of the War Department from certificates of the several accounts of the collectors and disbursing officers, and represents the fiscal affairs as settled by the auditor to June 30, 1901.

Printed as Senate Doc. No. 382, Fifty-seventh Congress, first session.

JUNE 14, 1902.

SENATE.

May 26, 1900, the following resolution was passed by the Senate of the United States:

IN THE SENATE OF THE UNITED STATES,  
May 26, 1900.

*Resolved*, That the Committee on Relations with Cuba is hereby directed to investigate and report to the Senate as early as practicable regarding the moneys received and expended in the island of Cuba by, through, and under the officials and representatives of the United States, both civil and military, and from the date of the occupation of Cuba by the military forces of the United States until and including the thirtieth day of April, nineteen hundred.

Said committee shall investigate and report as to receipts as follows: From customs; from postal service; from internal revenue; from all other sources, specifying the details as far as practicable, and particularly the places where and dates within which said amounts were collected or received, and the officer or officers collecting and receiving the same, as well as the law or authority under which said amounts were in each instance so collected or received.

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Said committee shall investigate and report as to the expenditures of the said amounts so received, the necessity and propriety thereof, specifying in classes and in detail, so far as practicable, said expenditures, and particularly the work, services, or property for which said expenditures were made and the value thereof, also the law or authority under which each of said expenditures was made, the officer, civil or military, by whom said expenditure was authorized, and the officer, civil or military, by whom said expenditure was made, and the particular fund from which the money was taken for said expenditure.

Said committee shall also report a statement of all public works of every kind, including buildings, wharves, railroads, and all other structures built or constructed, improved, repaired, or decorated by or under the authority of any such officer, civil or military, and in each instance the cost, value, necessity, and propriety of the same, and the uses to which said buildings or structures have been put. Where said buildings and works were constructed or improvements were made by contract, or where the material used in the same was furnished by contract, the committee shall report copies of each of said contracts and the names of all parties interested in each of the same.

Said committee shall also report a statement of the personal property which was purchased or procured and intrusted to any officer, civil or military, in Cuba within said time, the cost and value of the same, and the uses to which said property has been put and the disposition which has been made thereof.

Said committee is authorized to conduct said investigation and make such report by subcommittee or committees appointed by the chairman; and the committee, or any subcommittee thereof, is authorized to sit during the recess of Congress at such place or places in the United States or Cuba as may be necessary; and is empowered to send for persons and papers, issue subpoenas, administer oaths, examine witnesses, employ stenographers, expert accountants, and other necessary assistance, and the expense of said investigation shall be paid out of the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

In compliance with this, the "Bacon," resolution, 5,300 pages of type-written matter were compiled in this Bureau and published as Senate Doc. No. 177, Fifty-sixth Congress, first session.

On the above date, June 14, 1902, the Secretary of War furnished the Senate Committee on Relations with Cuba further reports, comprising 555 more pages, which had been compiled in this Bureau, and which embraced transactions in May and June, 1900, and supplementary accounts from the date of American occupation to June 30, 1900.

The last reports transmitted are published in Senate Doc. No. 448, Fifty-seventh Congress, first session.

In addition there have been tabulated and now ready for transmittal to Congress, pursuant to the provisions of the section of the deficiency bill quoted in the first part of this report, 8,000 large sheets of type-written matter embracing the period from July 1, 1900, to May 19, 1902, the close of American occupation in Cuba.

JUNE 23, 1902.

HOUSE.

*Resolved*, That the Secretary of War be, and he is hereby, directed to furnish to the House of Representatives, if not incompatible with the public interests, the following information: What amounts, if any, have been paid out of the Cuban treasury or the funds of the Cuban people by the military governor of Cuba, or by his direction, or by any officer of the United States, while the forces of the United States occupied Cuba, to F. B. Thurber, president of the United States Export Association, or any other person or persons, corporation or association, for advocating a reduction in the duties upon Cuban products with a reciprocal reduction in the duties upon American products imported into Cuba, or for services in support of the application of the inhabitants of the island of Cuba for reciprocal relations with the United States; also the date or dates of any of such payments.

Reply, July 1, 1902. Printed as House Doc. No. 679, Fifty-seventh Congress, first session.



The following executive documents have been published by this office during the past year:

EXECUTIVE DOCUMENTS.

“Public Laws and Resolutions Passed by the United States Philippine Commission.”

Copies of all acts and resolutions are certified to this office in English, Spanish, and Tagalo. All copies received in English up to the date of the report of the Secretary of War, which included act No. 263, were compiled, indexed, and published as a separate volume for distribution throughout the United States. The same compilation has been made this year, which includes everything from act No. 263 to No. 424, and is now ready for publication as an appendix to the coming report of the Secretary of War.

“The Law of Civil Government under Military Occupation.”

Pursuant to direction of October 30, 1901, the reports made to the Secretary of War by Charles E. Magoon, law officer of this Bureau, on the various questions of law arising during the administration of the affairs of civil government under military occupation of the islands ceded or yielded by Spain as a result of the Spanish-American war, have been compiled and published in book form, making a volume of 808 pages. The demand for this publication was so great that two editions were exhausted within a few days after coming from the press. This work has received universal commendation from the press and public without regard to party affiliation or personal views on the course pursued by the War Department in matters pertaining to insular affairs. It was the subject of editorial comment in nearly all the leading metropolitan journals, was reviewed in a large number of literary magazines, religious periodicals, and legal publications, and is already cited with approval in two text-books on constitutional law. The Review of Reviews in a recent article referred to this work as follows:

Nothing could illustrate better than this volume the vast number of intricate questions that have arisen in the course of our conduct of affairs in the islands formerly belonging to Spain, nor could anything throw more light upon the care with which the War Department has studied all the principles and precedents of constitutional and international law in its treatment of every issue that has arisen. It is a veritable mine of information relating to historical, legal, and administrative phases of the military occupation and management of conquered or ceded territory.

The New York Independent said:

This book will remain a lasting monument to the admirable administration of the War Office by Secretary Root during a period in which its administration was involved in especial difficulty.

Requests for this publication continue to be received daily. There are no funds available from the regular appropriations for a third edition, and will not be until July 1, 1903. I therefore recommend that Congress be requested to authorize a third edition of 5,000 copies, 1,000 to be for the use of the War Department.

“Official Register of Officers and Employees in the Civil Service of the Philippine Islands, January 1, 1902.”

“The Isle of Pines (Caribbean Sea), Its Situation, Physical Features, Inhabitants, Resources, and Industries. With maps. Prepared in the Bureau of Insular Affairs.”

“Report on the Right of the Government, Philippine Islands, to Regulate Commercial Intercourse with the Archipelago, and, as an Incident to such Regulation, to Impose Import and Export Duties. By Charles E. Magoon, law officer, Division of Insular Affairs, November 18, 1901.”

A number of suits have been instituted in the Federal courts of the United States seeking to recover from the Federal Government of the United States the amount paid to the government of the Philippine Islands as customs duties on articles imported into the Philippine Islands from the States of the Union. The Department of Justice being required to defend the interests of the Federal Government in these actions, called upon this Bureau to provide such information as it possessed or could secure which would be of service in said defense. In response, the law officer of the Bureau prepared the above report, which was transmitted to the Department of Justice by the Secretary of War and printed as a War Department publication. The Bureau, in conjunction with the office of the Judge-Advocate-General, U. S. Army, also prepared and transmitted to the Department of Justice a memorandum setting forth the facts establishing that the condition of war existed in the Philippine Islands during the period in which the litigated payments were made. The Bureau has undertaken, also, to collect evidence in the Philippines for the use of the Government in said suits.

“Manual of Information Relative to the Philippine Civil Service. Compiled and edited in the Bureau of Insular Affairs, containing all laws and orders relating thereto, and full instructions to applicants.”

“Report of Charles A. Conant, Special Commissioner on Coinage in the Philippines, which first appeared as an appendix to the report of the Secretary of War.”

“Report on Certain Questions in the English and Dutch Colonies in the Orient, by Jeremiah W. Jenks, special commissioner.”

Dr. Jeremiah W. Jenks, formerly secretary of the Industrial Commission, was, in August, 1901, given a commission to investigate these subjects in Europe and in the colonial possessions in the Orient, and to make a report thereon after arrival in the Philippines to the Philippine Commission and the Secretary of War, especially as to coinage, labor, taxation, and methods of land tenure. This valuable report comments on these questions in the Philippines, is indexed, printed, and ready for distribution. One feature is of especial interest in that it indorses the conclusions of the other special commissioner, Mr. Conant, and the recommendations of the Philippine Commission and the Secretary of War as to a gold-standard currency in the Philippines. In fact, several experts, heretofore strong adherents to the silver standard, have, in light of recent events and further study of the Philippine situation, become converts to the Philippine government gold-standard plan

MONTHLY SUMMARIES OF COMMERCE AND IMMIGRATION OF CUBA AND THE PHILIPPINE ISLANDS.

The monthly summaries of commerce have continued to be published to date. The last Cuban summary—May, 1902—gives exhaustive commercial and immigration statistics to include May 19, 1902, the date

of the termination of American occupation. This summary, in addition to the usual monthly data, gives a review of the commerce during the American occupation and comparative statistics by years.

The Philippine summary of December, 1901, gives the same review of the Philippines during American occupation.

These monthly summaries furnished Congress with statistical information while investigating questions relating to the Philippines and Cuba.

Arrangements have been made with the authorities in the Philippines to furnish commercial notes upon the Philippines, which it is trusted will give added interest to these publications.

#### INSULAR ACCOUNTS.

The new rules and instructions governing the accounting and auditing system in Cuba and in the Philippines, which practically put into force the accounting and auditing system of the United States, adapted by experience to local conditions and with added checks and safeguards, have been given trial for a year, with satisfactory and gratifying results. The statements of receipts and expenditures, by law required to be made to the War Department, as well as the method of handling these accounts after receipt, were explained in the last annual report of this office.

The work laid out by the item quoted in the first part of this report from the last general deficiency bill providing for the bringing up to date of the statements of receipts and expenditures made to the War Department relating to Cuba and the Philippines, for presentation to Congress, is in active progress.

With the exception of a small balance retained by the former military governor of Cuba, for the purpose of closing up the civil business and publish a full report of the military occupation of Cuba, the Cuban accounts have all been audited. The certificates of this audit, rendered to this office, have been compiled, differences reconciled, and, with the exception of the small balance above mentioned, the Cuban work may be said to be ready for presentation.

The work accomplished with reference to Cuba, in pursuance to the special appropriation of \$30,000 in the general deficiency appropriation bill, has been mentioned under the heading of Congressional resolutions and documents. See page 5.

The account of the treasurer, as certified by the auditor, shows that during the period of American occupation there was deposited \$59,806,236.35, and advanced on accountable and settlement warrants \$59,171,066.06.

To Mr. J. D. Terrill, the efficient auditor of the military government in Cuba, who has returned to the Comptroller's Office of the Treasury Department, much credit is due for completing the audit and transmission of statements to the War Department.

The original auditing records of the American occupation, weighing over thirty tons and filling 124 large boxes, have been received in Washington. Through the courtesy of the Director of the United States Census these records have found temporary lodgment in the Census building, where they have been arranged for daily reference, which will undoubtedly be necessary for some time to come.

Under Senate resolutions, mention has been made of Senate document No. 382, publishing a consolidated statement of the civil affairs in the Philippine Islands from August 20, 1898, to June 30, 1901.

During the fiscal years 1899 and 1900 there were received and handled from the auditor of the Philippine Archipelago 758 accounts. It is estimated that fully 2,500 accounts will be certified for the last fiscal year.

The Philippine government reports that due to the great increase of work in establishing a full civil government, which has largely added to the number of bonded disbursing officers throughout the Philippines, the difficulty of securing competent clerks, and other unavoidable causes, it is in arrears on the required certification to the War Department, but on the request of this office, and appreciating the desires of Congress, it has cooperated in every way, by increased appropriation, overtime work, and extra force, not only to catch up to date in the statements, but in the attempt to include to the date of June 30, 1902, the end of the last fiscal year, so that they may be compiled in time to present to Congress before the end of the coming session.

When it is realized that even in the United States audits are generally in arrears six months, that on account of the lack of communication it often takes three months for an account to reach the auditor's office in Manila, and that the constantly fluctuating currency often makes it necessary to handle at once five standards of value, then it may be appreciated that this ambitious task could, with any prospects of success, be undertaken only by men possessing the excellent qualifications demonstrated by Mr. Lawshe, the present auditor.

#### INSULAR AND UNITED STATES DEPOSITORIES.

Before May of this year the only insular depositories outside of the Philippine treasury have been two English corporations, the Hongkong and Shanghai Banking Corporation and the Chartered Bank of India, Australia, and China.

On May 15, 1902, by Executive order, the Guaranty Trust Company of New York was appointed a depository for Philippine funds both in the United States and Manila, under bond of \$2,000,000, approved by the Secretary of War. The company qualified May 28, 1902.

On June 21, 1902, the President likewise appointed the International Banking Corporation of Connecticut, with its head office in New York, a depository for Philippine funds, under a bond of the same amount. This company qualified on July 2, 1902. At present the Philippine funds outside of the Philippine treasury are divided equally among these four depositories.

The Treasury Department of the United States Government has appointed the Guaranty Trust Company of New York and the International Banking Corporation of Connecticut fiscal agents of the United States in the Philippines.

Pursuant to section 85 of the act of Congress of July 1, 1902, the Secretary of War and the Secretary of the Treasury designated the treasury of the Philippine Islands as a depository of the public money of the United States. Needful provisions were therefore made for the transmission of United States money other than by actual transportation to Manila and deposit at that place for the expenses of the United States in the Philippines, as well as provision for the deposit of Philippine moneys by the Philippine government, both in the Philippines and in the United States, by the establishment of branches of New York banks in Manila, thus expediting transactions between the United

States and the Philippines, both by the United States and Philippine governments, as well as furthering the commercial relations between these two countries.

The Philippine treasurer's checks, with an excellent vignette of the late General Lawton, have been engraved by the Bureau of Engraving and Printing and supplied to the treasurer of the Philippines, as well as United States depository checks in the Philippine treasurer's capacity as United States depository.

#### PURCHASE OF SUPPLIES IN THE UNITED STATES BY THE PHILIPPINE GOVERNMENT.

By act No. 146, January 21, 1902, the Philippine Commission created the office of insular purchasing agent, which office was charged with the purchase of all supplies required by the various departments and officers of the insular government, by the provincial governments, and the government of the city of Manila under the various appropriations to their respective credits. It has been the policy of the Philippine government to secure in the United States supplies not practically available in the Philippine market. Contracts for public works of magnitude are also advertised in the United States. Manifestly, purchase, payment, and shipment of these supplies, as well as authorized prepayments for transportation for civil appointees, can be more satisfactorily performed by a properly organized agency in the United States. Competition can be invited, following United States Government practices, supplies can be inspected, best prices and cash discounts can be obtained when payment is made here. It frequently happened when payment was made in Manila that settlement checks would not be received for over nine months and sometimes a year.

Such an agency has been created in this Bureau by the appointment by the Philippine Commission of one of the employees of this Bureau as disbursing agent of Philippine revenues, stationed in Washington; also the temporary appointment of a purchasing agent, at present located in New York City.

#### PURCHASING AGENT.

The appointment of an agent in New York and the organization of that office is but tentative and provisional. This work promises to develop rapidly and become a matter of large proportion and importance, requiring a most careful organization and businesslike methods. The Philippine Commission and this office have given much thought to the matter, and a recent report advises that a law has been recently drafted by the Philippine Commission making the necessary provisions.

#### DISBURSEMENTS.

The past is the first year in which settlements for purchases in the United States for the insular government have been made through this Bureau.

The total disbursements up to and including the present date amount to \$1,059,954.54, and are in payment of 1,400 accounts.

The work has increased so rapidly that it has been necessary to augment the clerical force, and it promises to so increase that it will be

necessary to further enlarge the force. The disbursing agent pays only such accounts as are approved by the Secretary of War or the Philippine Commission, and he is accountable and makes returns to the auditor for the Philippine Islands.

A complete set of books has been opened, especially adapted to this class of work, showing in detail every transaction—the authority, appropriation, and payment. Every account is so arranged and checked that it can be finally audited without reference to other papers.

By a Philippine executive order, all requisitions for purchases to be made in the United States are issued by the insular purchasing agent in Manila, approved by the civil governor, and referred to this Bureau. After proper entry here, orders for supplies that are not bought directly by the chief of the Bureau are transmitted by copy to the purchasing agent in New York, with the necessary instructions for purchase and shipment. The requisite vouchers and certificates are then forwarded to this office and prepared for payment, and duplicates immediately sent to the proper officials in the Philippines. Thus a double check or audit is had before the final one in Manila.

Purchases are made f. o. b. New York, in order to take advantage of the lowest rates obtainable and discounts usually allowed for cash payments.

The most important accounts disbursed on account of the bureau of public printing in the Philippines are as follows:

Equipment .....	\$131,474.99
Supplies .....	92,852.07
Ocean freight .....	10,638.97
Insurance .....	582.49
Boxing .....	156.19

Total ..... 235,704.71

Insular purchasing agent's purchases (located in New York):

School books (302,805) .....	\$115,648.46
Constabulary:	
Arms and ammunition .....	87,118.03
Clothing and shoes .....	19,387.20
Iron for cold-storage and ice plant .....	49,945.45
Stationery and supplies .....	29,571.06
Hay and oats .....	23,283.34
Hardware and miscellaneous merchandise .....	20,534.13
Engineering instruments and supplies .....	20,046.97
Typewriters and supplies .....	15,685.88
School supplies .....	15,242.49
Hose and belting .....	13,101.41
Office desks and chairs .....	10,933.48
Scales, wagons, and trucks .....	9,024.42
Filing cabinets .....	8,791.89
Law books for supreme court .....	6,576.03

Total ..... 444,870.24

OCEAN FREIGHT TRANSPORTATION.

In 1900 the Quartermaster's Department rate from New York to Manila, via Suez, was \$12.60 per ton. The best rate prior to January 9, 1902, that this Bureau could secure was \$11.25 per ton or 40 cubic feet, ship's option. After that date the rate of \$8 was secured, and since March 21, 1902, a rate of \$7.50 per ton or 40 cubic feet with the understanding that all packages, regardless of size and weight, should

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be charged for according to their actual weight or ship measurement. This arrangement has already resulted in much saving.

The total amount paid by the disbursing agent for ocean freight charges is \$31,772.68.

### MARINE INSURANCE.

Each shipment is insured so as to protect the Philippine government from losses occasioned by damages of any kind—by sea peril, by action of the elements, or negligence of handling or storage.

### TRANSPORTATION OF CIVIL EMPLOYEES.

These accounts number 413, showing that transportation has been furnished 1,209 people, costing \$37,802.52. Also 169 accounts have been paid, amounting to \$10,531.50 for sleeping car accommodations.

### CABLEGRAM AND TELEGRAM ACCOUNTS.

The total number of cable and telegraph accounts is 117; cost of sending 2,874 messages, total charges amounting to \$40,697.64.

In the verification of the various accounts by the disbursing office deductions to the amount of \$3,477.72 have been made and the accounts submitted for settlement. In the settlement of these accounts more than 3,000 letters and 20,000 pages of matter have been written.

After an inspection of the disbursing agent's accounts made by Colonel Burton, of the Army, August 21, 1902, he closed with a remark, as follows: "This officer's work is commendable for accuracy, integrity, and businesslike methods."

### PHILIPPINE CIVIL SERVICE.

This office is charged with the labor in the United States incident to the selection of appointees upon the certification of the United States Civil Service Commission after examination, and the arrangement for their transportation to the Philippines, as well as matters relating to appointments in the corps of teachers, the judiciary, and positions not subject to the requirements of the civil-service law.

The Government's policy, that selections be made on merit alone and according to law, so important, especially so in the past year of the formative period of civil government, has been strictly followed. Careful and complete information as possible has been obtained relative to applicants or eligibles before appointment was tendered.

The law requires that preference in appointments shall be given, first, to citizens of the Philippine Islands, and second, to honorably discharged soldiers, sailors, and marines of the United States, and it has been found possible to fill many of the lower grade positions by the appointment of this preferred class resident in the islands. For this reason the positions in the civil service to which provisional appointment is made, by request of the Philippine Commission, are generally of a scientific or technical character or require mechanical or special qualifications. There is not a surplus of this class of employees in the United States, and the work has been considerably increased by the difficulty at times of securing suitable employees, and

by the declination of appointment of many after submitting to examination by the United States Civil Service Commission. Declinations have largely increased recently, it is believed largely due to the reports of cholera.

It is necessary to guard against the appointment of persons merely willing to accept employment in a spirit of adventure, with the idea of enjoying a long journey at the expense of the Government with the intention of forcing their resignations after a brief period of service. The Philippine Commission passed a law to discourage this spirit, requiring that appointees for whose transportation from the United States any expense has been incurred by the Philippine government shall remain at least two years in the civil service, and that a failure so to do shall debar them from ever again entering the public service of the Philippines. No return transportation is furnished such employees.

Just recognition was given to the civil employees of the Government of American occupation in Cuba, who had rendered lengthy, efficient, and faithful service, by an Executive order making them eligible for transfer to the classified civil service of the United States, and therefore for service in the Philippine Islands. Many of these employees have been appointed to the Philippine service, where their experience gained in Cuba and knowledge of the Spanish language have rendered them peculiarly qualified.

The effect of the wise enactment of the Philippine Commission with reference to cumulative leaves of absence to be spent in the United States is now being felt, in that a considerable number of such employees who have taken advantage of the privilege are returning to the Philippine service.

Owing to the peaceful conditions which now obtain in the islands, a large number of requests for transportation for dependent members of families and fiancées of civil employees are being received. These requests are being honored as fast as the crowded condition of the transport service will permit.

This practice of furnishing free transportation, it is believed, will materially promote contentment of the employees, and give that stability and permanency to the service so much desired.

The army transport service has rendered great aid to the Philippine government, cooperating as it has in every way. During the past year that service has furnished transportation from San Francisco or New York to Manila to 221 Philippine civil employees, to 232 dependent members of families, to 34 fiancées, and to 3 Filipino students, making a total of 690. Of this number, however, about 60 were unable to proceed to Manila, and their transportation canceled.

The present element most necessary to this Philippine civil service, established as it has been on the merit system, is stability and permanency, and anything contributing thereto should be encouraged. The military service recognizes the principle of limited service, with promise of return.

The climate of certain portions of the islands is severe on a few, whose health breaks down without chance of recuperation until return to the United States. Could an executive rule be made providing eligibility for the United States civil service, under proper limitations and safeguards, after faithful service of, say, three years in the islands,



it is believed it would not only be equitable, but materially aid that required stability. However, this matter is under active consideration by the War Department and the United States Civil Service Commission.

THE DISINTERMENT AND BRINGING TO THE UNITED STATES OF THE BODIES OF DECEASED CIVIL EMPLOYEES.

This matter is constantly being brought to the attention of this Bureau by appeals from relatives and friends. There is no appropriation, either of the United States or the Philippine governments, as yet, that makes provision therefor, except that free transportation from Manila to San Francisco is allowed on Government transports, and also that the United States permits bodies of civil employees to be interred in Government cemeteries only when they have had previous military service.

The island service presents so different a situation from the home service that it is suggested that Congress authorize the setting aside of a portion of the national cemetery at San Francisco for this purpose.

CABLEGRAMS.

The new War Department cipher code, completed in the Adjutant-General's Office during the past year, has been used by the Philippine government. As is known, it is a figure code, insuring secrecy, elaborately constructed on the verb plan, and comprehensively providing for many additions. It is an excellent work and has given much satisfaction with great saving of expense, combined as it may be with the old code, which has been retained in service.

Although courteous opportunity was given this office to submit phrases commonly used by the Philippine government, this code was primarily prepared for military purposes, and an additional appendix was prepared in this office involving phrases relating to civil affairs. This appendix has been found so useful in reducing the cost of transmission, that an elaborate revised appendix or supplement is nearing completion, which it is believed will not only facilitate the work upon civil messages, but further decrease the cost. This is a matter of considerable moment when it is taken into account that the official rate, with the considerable reduction secured in the last year, is still \$1.56½ per word.

The cost of cablegrams, under the business of the civil government of the Philippines, which is paid out of Philippine revenues, sent from this Bureau to the Philippines follows:

Year.	Cablegrams.	Cost.
1901 .....	243	\$20,927.36
1902 .....	183	17,445.64
Total .....		\$38,373.00

LIBRARY OF INSULAR DOCUMENTS.

The attempt to ascertain the course pursued by the Executive departments in respect of the governments of civil affairs of Louisiana, Florida, New Mexico, California, and Alaska upon the acquisition of said

Territories and prior to the establishment of governments therein by Congressional legislation, developed the fact that such documents as remained in existence are practically lost by being indiscriminately mixed with the other Congressional and executive documents pertaining to those periods, and the work of ascertaining the few precedents to be derived from that portion of our history was greatly increased in consequence.

It was deemed wise to provide against a recurrence of the difficulty in respect of the documents relating to our recent acquisitions and to Cuba, and therefore all official publications relating to the work of this Bureau have been bound in volumes of convenient size. Five sets of this compilation are being prepared for the War Department. Much difficulty has been experienced in securing complete sets, each one embracing 4,203 separate publications. Up to date there are 120 bound volumes in each set. It is purposed to add to this library each new publication as issued, and in this way to segregate the record of the work performed by this Bureau from that of the War Department and the mass of publications known as Congressional documents.

These sets are being paged and a card index made of their contents. This compilation, it is believed, will be of much value and will furnish the only official library of the Philippines, Porto Rico, and Cuba extant.

#### MAP WORK.

This is a comparatively recent addition to the work of this office and was unexpectedly forced upon it, as events moved so rapidly—civil government was extended over provinces within such a short period, schools were established throughout the archipelago, ports were opened—that even the latest maps became out of date within a few weeks.

The first map work undertaken was simply the coloring of a number of maps of the Philippine Islands so as to distinguish the parts that were under civil government from those under military control. A number of these maps were prepared for the Secretary of War and the various committees of Congress.

In January, 1902, the "Insular Division map of the Philippines," without topographical features, but embodying up-to-date civil government and commercial information, was made and printed. The demand for this edition of 600 was so great that it was exhausted in a few weeks, and it was then decided to issue another which should be distinctively a map of this Bureau. This map has just been issued, and contains all the available information relative to ports, schools, provinces, Paris treaty lines, American provincial boundaries, and other data of interest with the exception of topographical features. Arrangements have been made with the civil government for a series of large scale maps, 3 miles to the inch, which will be revised and filled in as fast as the information is received. Comprehensive map work is now in progress in the Philippines. The Coast and Geodetic Survey, with the aid of civil funds, is cooperating with the civil government.

The map section is charged with the collection of maps from all sources for reference.

#### RECORDS.

The card system is still in use with some minor changes, which were found to result in a betterment. About 30,000 letters and indorse-

ments have been sent and as many received. As an indication of the great variety of subjects handled by this Bureau, the records show that since its formation as a division, and subsequently as a bureau, matters have been referred to it from the following sources: Direct from the President, 496 cases; from the Secretary of State, 843 cases; the Secretary of the Treasury, 586 cases; the Secretary of the Navy, 101 cases; the Secretary of the Interior, 67 cases; the Secretary of Agriculture, 66 cases; Postmaster-General, 55 cases; the Attorney-General, 43 cases; the Spanish Treaty Claims Commission, 299 cases; from 85 United States Senators, involving 488 subjects; from 240 Representatives in Congress, involving 601 subjects.

#### DOCUMENTS.

The distribution of documents, letters, circulars, reports, translations, and miscellaneous matter relating to insular affairs has been unusually large. In most instances we have been able to supply the active and constantly increasing demand for publications. The supply in many instances has been exhausted. The general mailing list has steadily increased.

The distribution of translations of 32 Spanish laws continues, there having been mailed during the year 18,500 parts and 500 sets embracing a complete collection of the translations. Sixteen thousand copies of the Monthly Summary of Commerce have been mailed. The total number of documents mailed during the year was 130,050.

There are at present on hand about 80 different publications for distribution, the total number of which approximates 35,000 copies, without taking account of leaflets and circulars.

Press bulletins of facts of interest relating to the Philippines are prepared whenever opportunity offers.

#### PHILIPPINE INSURGENT RECORDS.

These records and captured documents have been recently brought to Washington and loaned to this Bureau by the Adjutant-General's Office for preparation for possible publication.

Capt. John R. M. Taylor, Fourteenth Infantry, who was chief of the division of military information, adjutant-general's office, Division of the Philippines, an office which received these records on their capture or discovery, an officer peculiarly qualified, has been put in charge of this work.

#### SEPARATE FUNDS IN THE TREASURY OF THE UNITED STATES TO THE CREDIT OF THE PHILIPPINE TREASURY.

Section 2, of the act of March 8, 1902, provides that upon all articles the growth and product of the Philippine Archipelago coming into the United States from the Philippine Archipelago there shall be levied, collected, and paid only 75 per cent of the rates of duty of the "Dingley tariff."

The following are the amounts deposited each month since the passage of the act of March 8, 1902, and held as a separate fund to be paid into the Treasury of the Philippine Islands:

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*Philippine Islands tariff fund.*

March.....	\$1, 903. 01
April.....	3, 551. 91
May.....	2, 261. 91
June.....	1, 310. 79
July.....	2, 167. 21
August.....	2, 144. 83
September.....	1, 843. 41
Total to September 30.....	15, 183. 07

The smallness of this sum is quite a surprise, in that the estimate, while this bill was under consideration, from the analogy of the amounts collected for the corresponding separate fund to the credit of Porto Rico, and from a study of the statistics of Philippine trade, was that a much greater amount would accrue,

When it is considered that a little over \$15,000 was thus collected in seven months, admitting that the bulk of the sugar and tobacco crops are not generally moved during the above period, the total amount to be anticipated in any one year would probably not be considerable, when it is recalled that the Philippine Government recommended a reduction of 50 per cent of the "Dingley tariff" to Philippine products, and in fact Governor Taft believed the reduction of 75 per cent was warranted in the best interests of the Philippines and the United States.

CLERICAL FORCE.

[Relative efficiency record.]

The keen and capable work of this force is remarkable. The ordinary office hours have generally been ignored. Many of them have grown up with the Bureau and have become experts by the opportunities offered in the new field of their work. Gratifying recognition has been given them by Congress and the Secretary of War in covering them into the classified service, and in grading their salaries according to merit and work performed.

The force has so increased in size that much attention has been given to a practical method of carrying into effect the order of the Secretary of War of February 14, 1902, respecting semiannual efficiency reports. The experience and methods in other bureaus have been considered, and a scheme worked out differing in degrees from all, in which by the aid of blanks providing for a daily, weekly, and monthly report, the several factors, as far as practicable, that go to make up the record of a man's efficiency may be entered.

An efficiency board, consisting of a Bureau officer and the chiefs of divisions, has been convened, which board from time to time passes upon each man's record, aiming to eliminate possible prejudice by chiefs of divisions who keep the blanks, reconcile differences and determine relative efficiency, and otherwise aid the chief of the Bureau in determining the proper result.

RECOMMENDATIONS.

The work accomplished and in contemplation has been indicated in this report. The special appropriation of \$30,000 for the work in arrears on accounts will be exhausted on the completion thereof. The

above-mentioned temporary force of thirty-three will then have to be discharged.

Since the passage of the act which made this office a part of the recognized machinery of the government of the Philippines, enough time has elapsed, and that too in the absence of Congress which greatly increases the work, to make a fair estimate of the daily and monthly work and the clerical force required.

The following additional force for the fiscal year ending June 30, 1901, is believed necessary:

Class III (clerks) .....	1	
Class II (clerks) .....	2	
Class I (clerks) .....	1	
Class E (clerks) .....	4	
Class D (clerks) .....	4	
	—	12
Assistant messenger (\$720) .....	1	
Laborer (\$600) .....	1	
Laborer (\$300) .....	1	
	—	3
		<hr/>
Total .....		15

Mention has been made of the temporary arrangement for taking care of the American records of the Cuban audit. In the next six months it is anticipated that the remaining records of American occupation, weighing over 80 tons, which were left in Habana under charge of the agent for the War Department, will be brought to Washington. There is no room in the War Department for them, and no funds available to rent a building.

In the building on the corner of Eighteenth and F streets, there is a force of 48, 17 of whom belong to the permanent force, and for whom there is no room in the War Department proper.

It is therefore believed that \$6,000 will be necessary for the renting of a building for clerks and records for which there is no room in the War Department proper.

A review of the work performed by this Bureau would be incomplete without reference to the large amount of work performed in examining, investigating, and digesting documents, records, and other sources of information, and putting in form for convenient examination by the Secretary such information as is available and useful to him in determining routine and special matters which press for determination daily. The record of these cases may disclose only a cablegram or letter, while the research leading up to the preparation of the cablegram or letter in answer may have occupied several days. Frequently the question presented is so important and urgent as to take unanticipated precedence over all other work.

Respectfully submitted.

CLARENCE R. EDWARDS,  
*Colonel, U. S. Army, Chief of Bureau.*

The SECRETARY OF WAR.

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